

JPL BIBLIOGRAPHY 39-27

IN-82
49934-CR
35P.

Publications of the Jet Propulsion Laboratory 1985

(NASA-CR-180100) PUBLICATIONS OF THE JET
PROPULSION LABORATORY, 1985 (Jet Propulsion
Lab.) 35 p CSCI 05B

N87-16655

G3/82 43222
Unclas

December 15, 1986



National Aeronautics and
Space Administration

Jet Propulsion Laboratory
California Institute of Technology
Pasadena, California

Publications of the Jet Propulsion Laboratory 1985

December 15, 1986



National Aeronautics and
Space Administration

Jet Propulsion Laboratory
California Institute of Technology
Pasadena, California

This publication was prepared by the Jet Propulsion Laboratory, California Institute of Technology, under a contract with the National Aeronautics and Space Administration.

Foreword

JPL Bibliography 39-27 describes and indexes by primary author the externally distributed technical reporting, released during calendar year 1985, that resulted from scientific and engineering work performed, or managed, by the Jet Propulsion Laboratory. Three classes of publications are included:

- (1) JPL Publications (83-, 84-, 85-series, etc.), in which the information is complete for a specific accomplishment. Publications can be tailored to wide or limited audiences and be presented in an established standard format or special format to meet unique requirements.
- (2) Articles from the quarterly *Telecommunications and Data Acquisition (TDA) Progress Report* (42-series). Each collection of articles in this class of publication presents a periodic survey of current accomplishments by the Deep Space Network as well as other developments in Earth-based radio technology.
- (3) Articles published in the open literature.

Effective January 1977, the "JPL Publication" replaced the Technical Report, Technical Memorandum, and Special Publication. However, the discontinued classes may still appear in future issues of the Bibliography if succeeding volumes or revisions are published in their former series.

JPL personnel can obtain loan copies of cited documents from the JPL Library. Personnel of outside organizations can obtain copies or information regarding the availability of cited documents by addressing a written request to the Documentation and Materiel Division, Jet Propulsion Laboratory, 4800 Oak Grove Drive, Pasadena, California 91109 or the National Technical Information Service, 5285 Port Royal Road, Springfield, Virginia 22161.

Contents

JPL Publications	1
Progress Reports	7
Open Literature	13

PRECEDING PAGE BLANK NOT FILMED

JPL Publications

Alexander, P.,

Environmental Tests of Metallization Systems for Terrestrial Photovoltaic Cells,

JPL Publication 85-86, December 31, 1985.

(Prepared for the U.S. Department of Energy.)

Anspaugh, B. E., R. G. Downing, and L. B. Sidwell,

Solar Cell Calibration Facility Validation of Balloon Flight Data: A Comparison of Shuttle and Balloon Flight Results,

JPL Publication 85-78, October 15, 1985.

Anspaugh, B. E., and R. S. Weiss,

Results of the 1985 NASA / JPL Balloon Flight Solar Cell Calibration Program,

JPL Publication 85-88, December 15, 1985.

Birur, G. C.,

CELCAP: A Computer Model for Cogeneration System Analysis,

JPL Publication 85-20, July 1985.

(Prepared for the U.S. Department of the Navy, Naval Civil Engineering Laboratory.)

Borchardt, G. C.,

STAR (Simple Tool for Automated Reasoning): Tutorial Guide and Reference Manual,

JPL Publication 85-89, December 15, 1985.

Borden, C. S., and D. L. Schwartz,

Relative Potentials of Concentrating and Two-Axis Tracking Flat-Plate Photovoltaic Arrays for Central-Station Applications: Issue Study,

JPL Publication 85-16, December 31, 1984.

(Prepared for the U.S. Department of Energy.)

Bowyer, J. M., Jr.,

A Program for the Calculation of Paraboloidal-Dish Solar Thermal Power Plant Performance,

JPL Publication 85-36, April 15, 1985.

(Prepared for the U.S. Department of Energy.)

Brooks, T. L., and A. K. Bejczy,

Hand Controllers for Teleoperation: A State-of-the-Art Technology Survey and Evaluation,

JPL Publication 85-11, March 1, 1985.

Buehler, M. G., B. R. Blaes, G. A. Jennings,

B. T. Moore, R. H. Nixon, C. A. Pina, H. R. Sayah, M. W. Sievers, and N. F. Stahlberg,

Product Assurance Technology for Custom LSI/VLSI Electronics: Report for Period: October 1982 - September 1984,

JPL Publication 85-76, June 1985.

(Prepared for the Defense Advanced Research Project Agency and the U.S. Department of Defense.)

Coulter, D. R., R. E. Fornes (North Carolina State University), A. Gupta, and M. V. Smith,

The Effects of Energetic Proton Bombardment on Polymeric Materials: Experimental Studies and Degradation Models,

JPL Publication 85-101, June 1, 1986.

Crosetti, M. R., R. W. Aster, and B. L. Jackson,

A Sensitivity Analysis of Central Station Flat-Plate Photovoltaic Systems and Implications for National Photovoltaics Program Planning,

JPL Publication 85-92, August 30, 1985.

(Prepared for the U.S. Department of Energy.)

Cuddihy, E. F.,

A Concept for the Intrinsic Dielectric Strength of Electrical Insulation Materials,

JPL Publication 85-30, April 15, 1985.

(Prepared for the U.S. Department of Energy.)

Dantas, A. R. V., J. R. Coss, and M. K. Gauthier,

Total Integrated Dose Testing of Solid-State Scientific CD4011, CD4013, and CD4060 Devices by Irradiation With CO-60 Gamma Rays,

JPL Publication 85-47, May 15, 1985.

(Prepared for TRW Components International.)

Daud, T., and G. T. Crotty,

New High-Efficiency Silicon Solar Cells: Final Report August 11, 1983 - February 28, 1985,

JPL Publication 85-6, March 1, 1985.

(Prepared for the Solar Energy Research Institute.)

Davarian, F., M. Simon, and J. Sumida,

DMSK: A Practical 2400-bps Receiver for the Mobile Satellite Service: An MSAT-X Report,

JPL Publication 85-51, June 15, 1985.

DeMore, W. B., D. M. Golden (SRI International, California), **R. F. Hampson** (National Bureau of Standards, Maryland), **C. J. Howard** (NOAA Environmental Research Laboratory, Colorado), **M. J. Kurylo** (National Bureau of Standards, Maryland), **J. J. Margitan, M. J. Molina, A. R. Ravishankara** (NOAA Environmental Research Laboratory, Colorado), and **R. T. Watson**, *Chemical Kinetics and Photochemical Data for Use in Stratospheric Modeling: Evaluation Number 7*, JPL Publication 85-37, July 1, 1985.

Dennison, E. W., and T. O. Thostesen, *Development and Testing of Parabolic Dish Concentrator No. 1*, JPL Publication 85-4, December 15, 1984. (Prepared for the U.S. Department of Energy.)

Dennison, E. W., and G. F. Trentelman, *View-Limiting Shrouds for Insolation Radiometers*, JPL Publication 85-54, May 15, 1985. (Prepared for the U.S. Department of Energy.)

Dickinson, R. M., *A Comparison of 8.415-, 32.0-, and 565646-GHz Deep Space Telemetry Links*, JPL Publication 85-71, October 15, 1985.

Evans, N. L., Jr., and V. G. Wright, *Advanced Moisture and Temperature Sounder (AMTS) Baseline V Study Report*, JPL Publication 85-61, September 15, 1985.

Flytzani-Stephanopoulos, M. (Massachusetts Institute of Technology), **G. R. Gavalas** (California Institute of Technology), **P. K. Sharma**, and **S. S. Tamhankar** (California Institute of Technology), *Novel Sorbents for High-Temperature Regenerative H₂S Removal: Final Report*, JPL Publication 85-80, October 1985. (Prepared for the U.S. Department of Energy.)

Freilich, M. H., *Science Opportunities Using the NASA Scatterometer on N-ROSS*, JPL Publication 84-57, February 1, 1985.

Gauthier, M. K., and A. R. V. Dantas, *Radiation-Hard Analog-to-Digital Converters for Space and Strategic Applications*, JPL Publication 85-84, November 15, 1985. (Prepared for the U.S. Department of the Navy.)

Gennery, D. B., and B. Wilcox, *PIFEX: An Advanced Programmable Pipelined-Image Processor*, JPL Publication 84-97, February 1, 1985.

Gharib, M., A. Roshko, and V. Sarohia, *Effect of Flow Oscillations on Cavity Drag and a Technique for Their Control*, JPL Publication 85-72, September 30, 1985. (Prepared for the U.S. Department of the Army, Army Research Office.)

Hurd, W. J., J. I. Statman, and V. A. Vlnrotter, *High Dynamic GPS Receiver Validation Demonstration: Final Report*, JPL Publication 85-74, October 31, 1985. (Prepared for the United States Air Force Systems Command Armament Division.)

Ih, C.-H. C., and S. J. Wang, *Dynamic Modeling and Adaptive Control for Space Stations*, JPL Publication 85-57, July 15, 1985.

Jacobson, R. A., *Observations of Uranus' Satellites: Bibliography and Literature Search*, JPL Publication 85-79, October 15, 1985.

Jet Propulsion Laboratory, *Advanced Vehicle Systems Assessment: Volume I: Executive Summary*, JPL Publication 84-79, Vol. 1, January 1985. (Prepared for the U.S. Department of Energy.)

Jet Propulsion Laboratory, *Advanced Vehicle Systems Assessment: Volume II: Subsystems Assessment*, JPL Publication 84-79, Vol. 2, March 1985. (Prepared for the U.S. Department of Energy.)

Jet Propulsion Laboratory, *Advanced Vehicle Systems Assessment: Volume III: Systems Assessment*, JPL Publication 84-79, Vol. 3, March 1985. (Prepared for the U.S. Department of Energy.)

Jet Propulsion Laboratory, *Advanced Vehicle Systems Assessment: Volume IV: Supporting Analyses*, JPL Publication 84-79, Vol. 4, March 1985. (Prepared for the U.S. Department of Energy.)

Jet Propulsion Laboratory,
Advanced Vehicle Systems Assessment: Volume V: Appendices,
JPL Publication 84-79, Vol. 5, March 1985.
(Prepared for the U.S. Department of Energy.)

Jet Propulsion Laboratory,
Chemistry of MOS-LSI Radiation Hardening: Final Report,
JPL Publication 85-77, August 15, 1985.
(Prepared for the Defense Nuclear Agency.)

Jet Propulsion Laboratory,
ECUT Energy Conversion and Utilization Technologies Program: Biocatalysis Project Annual Report FY 1984,
JPL Publication 85-31, April 15, 1985.
(Prepared for the U.S. Department of Energy.)

Jet Propulsion Laboratory,
NASA/JPL Aircraft SAR Workshop Proceedings: February 4-5, 1985, at the Jet Propulsion Laboratory, Pasadena, California,
JPL Publication 85-39, June 15, 1985.

Jet Propulsion Laboratory,
Nomographs for Estimating the Levelized Cost of Energy from Flat-Plate and Concentrator Photovoltaic Systems,
JPL Publication 85-19, December 31, 1984.
(Prepared for the U.S. Department of Energy.)

Jet Propulsion Laboratory,
Parabolic Dish Test Site: History and Operating Experience,
JPL Publication 85-18, February 15, 1985.
(Prepared for the U.S. Department of Energy.)

Jet Propulsion Laboratory,
Proceedings of the Airborne Imaging Spectrometer Data Analysis Workshop: April 8, 9, 10, 1985,
JPL Publication 85-41, June 15, 1985.

Jet Propulsion Laboratory,
Proceedings of the Flat-Plate Solar Array Project Research Forum on High-Efficiency Crystalline Silicon Solar Cells,
JPL Publication 85-38, May 15, 1985.
(Prepared for the U.S. Department of Energy.)

Jet Propulsion Laboratory,
Proceedings of the Flat-Plate Solar Array Project Workshop on Crystal Growth for High-Efficiency Silicon Solar Cells: (December 3 and 4, 1984, at San Diego, California),
JPL Publication 85-59, August 15, 1985.
(Prepared for the U.S. Department of Energy.)

Jet Propulsion Laboratory,
Proceedings of the Workshop on Identification and Control of Flexible Space Structures: Volume I,
JPL Publication 85-29, Vol. 1, April 1, 1985.

Jet Propulsion Laboratory,
Proceedings of the Workshop on Identification and Control of Flexible Space Structures: Volume II,
JPL Publication 85-29, Vol. 2, April 1, 1985.

Jet Propulsion Laboratory,
Proceedings of the Workshop on Identification and Control of Flexible Space Structures: Volume III,
JPL Publication 85-29, Vol. 3, April 1, 1985.

Jet Propulsion Laboratory,
Progress Report 24 for the Period March 1984 to October 1984 and Proceedings of the 24th Project Integration Meeting,
JPL Publication 85-27.
(Prepared for the U.S. Department of Energy.)

Jet Propulsion Laboratory,
Publications of the JPL Solar Thermal Power Systems Project 1976 through 1985,
JPL Publication 85-52, September 1, 1985.
(Prepared for the U.S. Department of Energy.)

Jet Propulsion Laboratory,
Reliability and Engineering of Thin-Film Photovoltaic Modules: Research Forum Proceedings,
JPL Publication 85-73, October 1, 1985.
(Prepared for the U.S. Department of Energy.)

Jet Propulsion Laboratory,
Report of the Workshop on Geologic Applications of Remote Sensing to the Study of Sedimentary Basins: Lakewood, Colorado, January 10-11, 1985,
JPL Publication 85-44, August 1, 1985.

Jet Propulsion Laboratory,
Satellite-Derived Sea Surface Temperature: Workshop-III: February 22-24, 1984, Pasadena, California,
JPL Publication 85-63, October 15, 1985.

Jet Propulsion Laboratory,
Towards a Study of Synoptic-Scale Variability and Dynamics of the California Current System: Report of the West Coast Satellite Time Series Advisory Group,
JPL Publication 85-22, April 1, 1985.

Jurgens, R. F., and D. Divsalar,
*A Proposed Technique for the Venus Balloon
Telemetry and Doppler Frequency Recovery,*
JPL Publication 85-68, April 15, 1985.

Kachare, R., and J. Moacanin,
*A Summary Report on the Flat-Plate Solar Array
Project Workshop on Transparent Conducting
Polymers: January 11 and 12, 1985,*
JPL Publication 85-60, August 1, 1985.
(Prepared for the U.S. Department of Energy.)

**Khanna, S. K., J. Lambe, H. G. LeDuc, and
A. P. Thakoor,**
*Thin-Film Chemical Sensors Based on Electron
Tunneling: Final Report,*
JPL Publication 85-85, November 15, 1985.
(Prepared for the U.S. Department of Energy.)

Kiceniuk, T.,
*Development of an Organic Rankine-Cycle Power
Module for a Small Community Solar Thermal
Power Experiment,*
JPL Publication 85-3, January 15, 1985.
(Prepared for the U.S. Department of Energy.)

**Kirkham, H., T. Daud, S. Hyland, A. Johnston, and
G. Lutes,**
Power System Applications of Fiber Optics,
JPL Publication 84-28, March 1984.
(Prepared for the U.S. Department of Energy.)

Lawson, C. L.,
Some Properties of n -Dimensional Triangulations,
JPL Publication 85-42, June 15, 1985.

Leung, P.,
*Characterization of EMI Generated by the Discharge
of a "VOLT" Solar Array: Final Report,*
JPL Publication 85-82, November 1, 1985.

Liu, W. T.,
*Assessing the Capability of EOS Sensors in
Measuring Ocean-Atmosphere Moisture Exchange,*
JPL Publication 85-93, December 15, 1985.

Liu, W. T., and P. P. Niiler,
*Tropical Ocean and Global Atmosphere (TOGA)
Heat Exchange Project - A Summary Report,*
JPL Publication 85-49, June 1, 1985.

Livingston, F. R.,
*Activity and Accomplishments in Dish / Stirling
Electric Power System Development,*
JPL Publication 85-8, February 15, 1985.
(Prepared for the U.S. Department of Energy.)

**Martin, K. E., J. R. Coss, A. R. V. Dantas,
M. K. Gauthier, and W. E. Price,**
*Total-Dose Radiation Effects Data for
Semiconductor Devices: 1985 Supplement,*
JPL Publication 85-43, Vol. 1, October 15, 1985.

Martin, M. D., G. Laughlin, and C. L. Stanley,
Planetary Image Conversion Task: Final Report,
JPL Publication 85-50, September 15, 1985.

Meldrum, D. R.,
*Direct Model Reference Adaptive Control of a
Flexible Robotic Manipulator,*
JPL Publication 85-100, December 15, 1985.

Miles, R. F., Jr.,
*The RANDOM Computer Program: A Linear
Congruential Random Number Generator,*
JPL Publication 85-97, February 15, 1986.
(Prepared for the U.S. Department of Energy.)

Miles, R. F., Jr.,
*The SIMRAND I Computer Program: Simulation of
Research and Development Projects,*
JPL Publication 85-96, February 15, 1986.
(Prepared for the U.S. Department of Energy.)

Miles, R. F., Jr.,
*The SIMRAND Methodology: Theory and
Application for the Simulation of Research and
Development Projects,*
JPL Publication 85-98, February 15, 1986.
(Prepared for the U.S. Department of Energy.)

Miyazono, C. K.,
*Overview of Software Development at the Parabolic
Dish Test Site,*
JPL Publication 85-56, July 15, 1985.
(Prepared for the U.S. Department of Energy.)

Mokashi, A. R., T. Daud, and R. H. Kachare,
*High-Efficiency Silicon Solar-Cell Design and
Practical Barriers,*
JPL Publication 85-75, November 15, 1985.
(Prepared for the U.S. Department of Energy.)

Mokashi, A. R., T. Daud, and R. H. Kachare,
*High-Efficiency Silicon Solar-Cell Design
Evaluation and Sensitivity Analysis,*
JPL Publication 85-46, October 15, 1985.
(Prepared for the U.S. Department of Energy.)

Mokashi, A. R., T. Daud, and R. H. Kachare,
Sensitivity Analysis of a Passivated Thin Silicon Solar Cell,
JPL Publication 85-48, November 1, 1985.
(Prepared for the U.S. Department of Energy.)

Palluconi, F. D., and G. R. Meeks (NASA National Space Technology Laboratories, Earth Resources Laboratory),
Thermal Infrared Multispectral Scanner (TIMS): An Investigator's Guide to TIMS Data,
JPL Publication 85-32, June 1, 1985.

Parthasarathy, S. P., L. H. Back, and Y. I. Cho,
Fundamental Study of Flow Field Generated by Rotorcraft Blades Using Wide-Field Shadowgraph,
JPL Publication 85-64, October 1, 1985.

Paylor, E. D., M. J. Abrams, J. E. Conel, A. B. Kahle, and H. R. Lang,
Performance Evaluation and Geologic Utility of Landsat-4 Thematic Mapper Data,
JPL Publication 85-66, October 15, 1985.

Pearson, A. M.,
Documents of the JPL Photovoltaics Program Analysis and Integration Center: An Annotated Bibliography,
JPL Publication 85-26, April 1, 1985,
(Prepared for the U.S. Department of Energy.)

Perlman, M.,
Periodic Binary Sequence Generators: Very Large Scale Integrated (VLSI) Circuit Considerations,
JPL Publication 85-7, December 1984.

Pollara, F.,
A Software Simulation Study of a (255,223) Reed-Solomon Encoder/Decoder,
JPL Publication 85-23, April 15, 1985.

Resch, G. M., K. M. Barbier, R. C. Chandlee, M. C. Chavez, and N. I. Yamane,
Water Vapor Radiometry Research and Development Phase Final Report,
JPL Publication 85-14, April 1, 1985.

Rice, R. F., and J. Lee,
Noiseless Coding for the Gamma Ray Spectrometer,
JPL Publication 85-53, June 1985.

Selçuk, M. K., and W. Edmiston,
Peak Power Cost Reduction Guidebook,
JPL Publication 85-91, December 15, 1985.
(Prepared for the U.S. Department of the Air Force, Air Force Engineering and Services.)

Simon, M. K., and D. Divsalar,
Combined Trellis Coding With Asymmetric MPSK Modulation: An MSAT-X Report,
JPL Publication 85-24, May 1, 1985.

Simon, M. K., and D. Divsalar,
A New Description of Combined Trellis Coding With Asymmetric Modulation: An MSAT-X Report,
JPL Publication 85-45, July 15, 1985.

Simon, M. K., and A. Mileant,
Performance Analysis of the DSN Baseband Assembly (BBA) Real-Time Combiner (RTC),
JPL Publication 84-94, Rev. 1, May 1, 1985.

Smith, J. H., A. Feinberg, and R. F. Miles, Jr.,
Spaceborne Power Systems Preference Analyses, Volume I: Summary,
JPL Publication 85-5, Vol. 1, January 15, 1985.
(Prepared for the Defense Advanced Research Projects Agency.)

Smith, J. H., A. Feinberg, and R. F. Miles, Jr.,
Spaceborne Power Systems Preference Analyses, Volume II: Decision Analysis,
JPL Publication 85-5, Vol. 2, January 15, 1985.
(Prepared for the Defense Advanced Research Projects Agency.)

Smokler, M. I.,
User Handbook for Block V Silicon Solar Cell Modules,
JPL Publication 85-34, May 15, 1985.
(Prepared for the U.S. Department of Energy.)

Stacey, J. M.,
Microwave Blackbodies For Spaceborne Receivers,
JPL Publication 85-10, March 1, 1985.

Stacey, J. M.,
Microwave Properties of a Quiet Sea,
JPL Publication 85-33, May 15, 1985.

Stacey, J. M., and M. A. Girard,
Microwave Responses of the Western North Atlantic,
JPL Publication 85-12, February 15, 1985.

Stacey, J. M., M. A. Girard, E. J. Johnson, and H. A. Regusters (Unicorne Research Foundation),
Microwave Hydrology: A Trilogy,
JPL Publication 85-21, April 1, 1985.

Stallkamp, J. A.,
Control System for Parabolic Dish Concentrator
No. 1,
JPL Publication 85-40, March 15, 1985.
(Prepared for the U.S. Department of Energy.)

Stearns, J.,
Stirling Engine Alternatives for the Terrestrial
Solar Application,
JPL Publication 85-70, October 1985.
(Prepared for the U.S. Department of Energy.)

Sue, M. K., and Y. H. Park,
Second-Generation Mobile Satellite System:
A Conceptual Design and Trade-Off Study,
JPL Publication 85-58, June 1, 1985.

Vilnrotter, V. A.,
Optical Receivers Using Rough Reflectors,
JPL Publication 85-25, May 1, 1985.

Wang, S. J., and C.-H. C. Ih,
Geometric Error Analysis for Shuttle Imaging
Spectrometer Experiment,
JPL Publication 85-2, December 15, 1984.

Wilcox, R. E.,
A Comparison of Metropolitan and Non-
Metropolitan Employment Characteristics:
Indications of the Size of Non-Metropolitan Mobile
Communication Services User Classes,
JPL Publication 85-9, February 15, 1985.

Wynn, L. K.,
Comparison of Manually Produced and Automated
Cross Country Movement Maps Using Digital
Image Processing Techniques,
JPL Publication 85-90, December 15, 1985.

Yuen, J. H., T. C. Hou (University of Southern
California), Y. F. Lam (University of Southern
California), and V. O. K. Li (University of Southern
California),
Topology Design and Performance Analysis of an
Integrated Communication Network,
JPL Publication 85-67, September 15, 1985.

Zimmerman, W. F., J. Bard, and A. Feinberg,
Space Station Man-Machine Automation Trade-off
Analysis,
JPL Publication 85-13, February 15, 1985.

Progress Reports

Aguirre, S.

"Acquisition Times of Carrier Tracking Sampled Data Phase-Locked Loops,"

The Telecommunications and Data Acquisition Progress Report, 42-84: October through December 1985,

pp. 88-93, February 15, 1986.

Berner, J. B., R. J. McEliece (California Institute of Technology), and E. C. Posner,

"Error and Erasure Probabilities for Galileo Uplink Code,"

The Telecommunications and Data Acquisition Progress Report, 42-83: July through September 1985,
pp. 165-179, November 15, 1985.

Brockman, M. H.,

"Performance Characteristics for an Array of Two Receiving Systems With Equal Apertures and Enhanced Radio Frequency Carrier Margin Improvement,"

The Telecommunications and Data Acquisition Progress Report, 42-84: October through December 1985,
pp. 112-126, February 15, 1986.

Brockman, M. H.,

"Performance Characteristics for an Array of Two Receiving Systems With Unequal Predetection Signal-to-Noise Ratios and Enhanced Radio Frequency Carrier Margin Improvement,"

The Telecommunications and Data Acquisition Progress Report, 42-84: October through December 1985,
pp. 101-111, February 15, 1986.

Brokl, S. S.,

"Controller and Interface Module for the High-Speed Data Acquisition System Correlator/Accumulator,"

The Telecommunications and Data Acquisition Progress Report, 42-83: July through September 1985,
pp. 113-124, November 15, 1985.

Brokl, S. S.,

"A General Monitor and Control Interface to the VAX I/O by Way of the DR11-C I/O Port,"

The Telecommunications and Data Acquisition Progress Report, 42-83: July through September 1985,
pp. 125-133, November 15, 1985.

Cha, A. G.,

"Physical Optics Analysis of a Four-Reflector Antenna: Part 1,"

The Telecommunications and Data Acquisition Progress Report, 42-84: October through December 1985,
pp. 94-100, February 15, 1986.

Cha, A. G., and R. Levy,

"Gain, Phase, and Frequency Stability of DSS-42 and DSS-43 for Voyager Uranus Encounter,"

The Telecommunications and Data Acquisition Progress Report, 42-84: October through December 1985,
pp. 164-175, February 15, 1986.

Chan, F. P., R. F. Jurgens, and M. P. Quirk,

"High-Speed Digital Baseband Mixer,"

The Telecommunications and Data Acquisition Progress Report, 42-81: January through March 1985,
pp. 63-80, May 15, 1985.

Chatburn, C. C.,

"Network Information Management Subsystem,"

The Telecommunications and Data Acquisition Progress Report, 42-81: January through March 1985,
pp. 109-115, May 15, 1986.

Chian, C. T., and R. Levy,

"Load-Deflection Tests and Computer Analyses of a High-Precision Adhesive-Bonded Antenna Reflector Panel,"

The Telecommunications and Data Acquisition Progress Report, 42-82: April through June 1985,
pp. 68-81, August 15, 1985.

Clements, P. A., S. E. Borutzki, and A. Kirk,

"Maintenance of Time and Frequency in the DSN Using the Global Positioning System,"

The Telecommunications and Data Acquisition Progress Report, 42-81: January through March 1985,
pp. 94-108, May 15, 1985.

Crow, B., L. Ching, A. Lokshin, and M. Marina,

"SETI Radio Spectrum Surveillance System,"

The Telecommunications and Data Acquisition Progress Report, 42-82: April through June 1985,
pp. 173-184, August 15, 1985.

Crowe, R. A.,

"The GCF Mark IV Implementation and Beyond,"
The Telecommunications and Data Acquisition Progress Report, 42-82: April through June 1985,
pp. 163-172, August 15, 1985.

Cucchissi, J. J.,

"A New 70-Meter Antenna Quadripod With Reduced RF Blockage,"
The Telecommunications and Data Acquisition Progress Report, 42-82: April through June 1985,
pp. 24-30, August 15, 1985.

Daher, J.,

"Preliminary Results Toward Injection Locking of an Incoherent Laser Array,"
The Telecommunications and Data Acquisition Progress Report, 42-84: October through December 1985,
pp. 26-34, February 15, 1986.

Deutsch, L. J.,

"An Integrated UNIX-Based CAD System for the Design and Testing of Custom VLSI Chips,"
The Telecommunications and Data Acquisition Progress Report, 42-81: January through March 1985,
pp. 51-62, May 15, 1985.

Divsalar, D.,

"A Sequential Decoding Performance Analysis for International Comet Explorer,"
The Telecommunications and Data Acquisition Progress Report, 42-82: April through June 1985,
pp. 82-91, August 15, 1985.

Falin, B. W.,

"DSN Frequency and Timing System, Mark IV-85,"
The Telecommunications and Data Acquisition Progress Report, 42-82: April through June 1985,
pp. 113-119, August 15, 1985.

Fanelli, N. A.,

"JPL Emergency Support of TDRSS and Compatible Satellites,"
The Telecommunications and Data Acquisition Progress Report, 42-82: April through June 1985,
pp. 120-124, August 15, 1985.

Fanelli, N. A., and D. Morris,

"ICE Encounter Operations,"
The Telecommunications and Data Acquisition Progress Report, 42-84: October through December 1985,
pp. 176-185, February 15, 1986.

Goodwin, J. P.,

"Usuda Deep Space Center Support for ICE,"
The Telecommunications and Data Acquisition Progress Report, 42-84: October through December 1985,
pp. 186-196, February 15, 1986.

Gordon, D. D., and M. T. Ward,

"Arecibo Observatory Support of the U.S. International Cometary Explorer Mission Encounter at Comet Giacobini-Zinner,"
The Telecommunications and Data Acquisition Progress Report, 42-84: October through December 1985,
pp. 197-202, February 15, 1986.

Harding, J. A., and L. J. Deutsch,

"A Laser Plotting System for VLSI Chip Layouts,"
The Telecommunications and Data Acquisition Progress Report, 42-83: July through September 1985,
pp. 81-91, November 15, 1985.

Hoppe, D.,

"An Experimental TE₁₂ - TE₁₁ Circular Waveguide Mode Converter,"
The Telecommunications and Data Acquisition Progress Report, 42-82: April through June 1985,
pp. 43-56, August 15, 1985.

Hoppe, D.,

"Propagation and Radiation Characteristics of a Multimode Corrugated Waveguide Feedhorn,"
The Telecommunications and Data Acquisition Progress Report, 42-82: April through June 1985,
pp. 57-67, August 15, 1985.

Hsu, I. S., L. J. Deutsch, I. S. Reed (University of Southern California), and T. K. Truong,

"A VLSI Single Chip (255, 223) Reed-Solomon Encoder,"
The Telecommunications and Data Acquisition Progress Report, 42-83: July through September 1985,
pp. 51-56, November 15, 1985.

Hsu, I. S., L. J. Deutsch, H. M. Shao, and T. K. Truong,

"A VLSI Single Chip 8-Bit Finite Field Multiplier,"
The Telecommunications and Data Acquisition Progress Report, 42-83: July through September 1985,
pp. 45-50, November 15, 1985.

Hurd, W. J., F. Pollara, M. D. Russell, B. Siev, and P. U. Winter,

"Intercontinental Antenna Arraying by Symbol Stream Combining at ICE Giacobini-Zinner Encounter,"

The Telecommunications and Data Acquisition Progress Report, 42-84: October through December 1985,
pp. 220-228, February 15, 1986.

Katow, M. S.,

"Coupled Translations of the 64-Meter Antenna Subreflector Supports,"

The Telecommunications and Data Acquisition Progress Report, 42-83: July through September 1985,
pp. 1-11, November 15, 1986.

Kiedron, K., and C. T. Chian,

"Seismic Analysis of the Large 70-Meter Antenna, Part I: Earthquake Response Spectra Versus Full Transient Analysis,"

The Telecommunications and Data Acquisition Progress Report, 42-82: April through June 1985,
pp. 31-42, August 15, 1985.

Kiedron, K., and C. T. Chian,

"Seismic Analysis of the Large 70-Meter Antenna, Part II: General Dynamic Response and a Seismic Safety Check,"

The Telecommunications and Data Acquisition Progress Report, 42-83: July through September 1985,
pp. 12-25, November 15, 1985.

Kroger, P. M., J. M. Davidson, and E. C. Gardner (Kalamazoo College),

"Mobile VLBI and GPS Measurement of Vertical Crustal Motion,"

The Telecommunications and Data Acquisition Progress Report, 42-82: April through June 1985,
pp. 185-198, May 15, 1985.

Kumar, R., and W. J. Hurd,

"A Class of Optimum Digital Phase Locked Loops for the DSN Advanced Receiver,"

The Telecommunications and Data Acquisition Progress Report, 42-83: July through September 1985,
pp. 63-80, November 15, 1985.

Layland, J. W.,

"ICE Telemetry Performance,"

The Telecommunications and Data Acquisition Progress Report, 42-84: October through December 1985,
pp. 203-213, February 15, 1986.

Layland, J. W., and D. W. Brown,

"Planning for VLA/DSN Arrayed Support to the Voyager at Neptune,"

The Telecommunications and Data Acquisition Progress Report, 42-82: April through June 1985,
pp. 125-135, August 15, 1985.

Layland, J. W., P. J. Napier (National Radio Astronomy Observatory), and A. R. Thompson (National Radio Astronomy Observatory),

"A VLA Experiment - Planning for Voyager at Neptune,"

The Telecommunications and Data Acquisition Progress Report, 42-82: April through June 1985,
pp. 136-142, August 15, 1985.

Lee, P. J.,

"Bit Error Rate of Coherent M-ary PSK,"

The Telecommunications and Data Acquisition Progress Report, 42-81: January through March 1985,
pp. 31-37, May 15, 1985.

Lee, P. J.,

"High-Rate Convolutional Code Construction With the Minimum Required SNR Criterion,"

The Telecommunications and Data Acquisition Progress Report, 42-82: April through June 1985,
pp. 108-112, August 15, 1985.

McClure, D.,

"Repair of the DSS-14 Pedestal Concrete,"

The Telecommunications and Data Acquisition Progress Report, 42-81: January through March 1985,
pp. 136-148, May 15, 1985.

McEliece, R. J. (California Institute of Technology), F. Pollara, and L. Swanson,

"Symbol Stream Combining in a Convolutionally Coded System,"

The Telecommunications and Data Acquisition Progress Report, 42-81: January through March 1985,
pp. 47-50, May 15, 1985.

McEliece, R. J. (California Institute of Technology), and E. C. Posner,

"The Number of Stable Points of an Infinite-Range Spin Glass Memory,"

The Telecommunications and Data Acquisition Progress Report, 42-83: July through September 1985,
pp. 209-215, November 15, 1985.

McEliece, R. J. (California Institute of Technology), E. C. Posner, and L. Swanson,
 "A Note on the Wideband Gaussian Broadcast Channel,"
The Telecommunications and Data Acquisition Progress Report, 42-84: October through December 1985,
 pp. 60-65, February 15, 1986.

McEliece, R. J. (California Institute of Technology), and L. Swanson,
 "On the Decoder Error Probability for Reed-Solomon Codes,"
The Telecommunications and Data Acquisition Progress Report, 42-84: October through December 1985,
 pp. 66-72, February 15, 1986.

McGinness, H.,
 "A Description of the 64-Meter Antenna Elevation Drive Gears and Their Strange Wear,"
The Telecommunications and Data Acquisition Progress Report, 42-81: January through March 1985,
 pp. 116-135, May 15, 1985.

Morabito, D. D., J. Faulkner, D. L. Jauncey (CSIRO, Sydney, Australia), G. D. Nicolson (CSIR, Johannesburg, South Africa), R. A. Preston, and J. G. Williams,
 "A VLBI Survey at 2.29 GHz,"
The Telecommunications and Data Acquisition Progress Report, 42-82: April through June 1985,
 pp. 1-10, August 15, 1985.

Nadeau, T.,
 "Periodic Variations in the Signal-to-Noise Ratios of Signals Received From the ICE Spacecraft,"
The Telecommunications and Data Acquisition Progress Report, 42-84: October through December 1985,
 pp. 214-219, February 15, 1986.

Niell, A. E., G. L. Berge (California Institute of Technology), J. K. Campbell, P. B. Esposito, D. O. Muhleman (California Institute of Technology), XX Newhall, R. A. Preston, D. J. Rudy (California Institute of Technology), and E. M. Standish,
 "Relating the Planetary Ephemerides and the Radio Reference Frame,"
The Telecommunications and Data Acquisition Progress Report, 42-81: January through March 1985,
 pp. 1-8, May 15, 1986.

Peng, T. K., and F. F. Donovan,
 "Deep Space Network Radio Science System for Voyager Uranus and Galileo Missions,"
The Telecommunications and Data Acquisition Progress Report, 42-84: October through December 1985,
 pp. 143-151, February 15, 1986.

Pitt, G. H., III, and L. Swanson,
 "Decoding Convolutionally Encoded Images,"
The Telecommunications and Data Acquisition Progress Report, 42-83: July through September 1985,
 pp. 34-38, November 15, 1985.

Pitt, G. H., III, and L. Swanson,
 "Erasure Information for a Reed-Solomon Decoder,"
The Telecommunications and Data Acquisition Progress Report, 42-83: July through September 1985,
 pp. 39-44, November 15, 1985.

Pollara, F.,
 "A Software Simulation Study of a Sequential Decoder Using the Fano Algorithm,"
The Telecommunications and Data Acquisition Progress Report, 42-81: January through March 1985,
 pp. 40-46, May 15, 1985.

Pollara, F.,
 "Viterbi Algorithm on a Hypercube: Concurrent Formulation,"
The Telecommunications and Data Acquisition Progress Report, 42-84: October through December 1985,
 pp. 249-255, February 15, 1986.

Pollara, F., and L. Swanson,
 "Effects of Quantization on Symbol Stream Combining in a Convolutionally Coded System,"
The Telecommunications and Data Acquisition Progress Report, 42-84: October through December 1985,
 pp. 82-87, February 15, 1986.

Pomalaza-Raez, C. A., and W. J. Hurd,
 "Carrier Tracking by Smoothing Filter Can Improve Symbol SNR,"
The Telecommunications and Data Acquisition Progress Report, 42-83: July through September 1985,
 pp. 57-62, November 15, 1985.

Quirk, M. P., M. J. Grimm, and H. S. Wilck,
"A Wide-Band, High-Resolution Spectrum Analyzer,"
The Telecommunications and Data Acquisition Progress Report, 42-83: July through September 1985,
pp. 180-190, November 15, 1985.

Reed, I. S. (University of Southern California), I. S. Hsu, J. M. Jensen (University of Southern California), and T. K. Truong,
"The VLSI Design of Error-Trellis Syndrome Decoding for Convolutional Codes,"
The Telecommunications and Data Acquisition Progress Report, 42-82: April through June 1985,
pp. 92-107, August 15, 1985.

Robinson, D. L., and D. A. Hays,
"Photon Detection With Cooled Avalanche Photodiodes: Theory and Preliminary Experimental Results,"
The Telecommunications and Data Acquisition Progress Report, 42-81: January through March 1985,
pp. 9-17, May 15, 1985.

Rodemich, E. R.,
"Improved Mapping of Radio Sources From VLBI Data by Least-Squares Fit,"
The Telecommunications and Data Acquisition Progress Report, 42-82: April through June 1985,
pp. 199-210, August 15, 1985.

Ross, D. L.,
"Mark IV-A DSCC Telemetry System Description,"
The Telecommunications and Data Acquisition Progress Report, 42-83: July through September 1985,
pp. 92-100, November 15, 1985.

Ruskin, A. M., and C. T. Quach,
"Determining Availability Characteristics of DSN Data Systems Using Discrepancy Report Data,"
The Telecommunications and Data Acquisition Progress Report, 42-81: January through March 1985,
pp. 149-161, May 15, 1985.

Scheid, J. A.,
"Comparison of the Calibration of Ionospheric Delay in VLBI Data by the Methods of Dual Frequency and Faraday Rotation,"
The Telecommunications and Data Acquisition Progress Report, 42-82: April through June 1985,
pp. 11-23, August 15, 1985.

Shao, H. M., L. J. Deutsch, I. S. Hsu, I. S. Reed (University of Southern California), and T. K. Truong,
"A Single Chip VLSI Reed-Solomon Decoder,"
The Telecommunications and Data Acquisition Progress Report, 42-84: October through December 1985,
pp. 73-81, February 15, 1986.

Simon, M., and A. Mileant,
"Digital Filters for Digital Phase-Locked Loops,"
The Telecommunications and Data Acquisition Progress Report, 42-81: January through March 1985,
pp. 81-93, May 15, 1985.

Slobin, S. D.,
"A Conceptual 34-Meter Antenna Feed Configuration for Joint DSN/SETI Use From 1 to 10 GHz,"
The Telecommunications and Data Acquisition Progress Report, 42-84: October through December 1985,
pp. 127-134, February 15, 1986.

Solomon, J., W. Lawton, E. T. Olsen, and M. P. Quirk,
"A Signal Detection Strategy for the SETI All Sky Survey,"
The Telecommunications and Data Acquisition Progress Report, 42-83: July through September 1985,
pp. 191-208, November 15, 1985.

Sovers, O. J., and C. Ma (NASA Goddard Space Flight Center),
"Comparison of GSFC and JPL VLBI Modeling Software: Benchmark,"
The Telecommunications and Data Acquisition Progress Report, 42-83: July through September 1985,
pp. 101-112, November 15, 1985.

Stephenson, S. N.,
"Mark IVA Project Training Evaluation,"
The Telecommunications and Data Acquisition Progress Report, 42-83, July through September 1985,
pp. 134-164, November 15, 1985.

Strain, D., and R. Levy,
"New Reflective Symmetry Design Capability in the JPL-IDEAS Structure Optimization Program,"
The Telecommunications and Data Acquisition Progress Report, 42-84: October through December 1985,
pp. 18-25, February 15, 1986.

Swanson, L.,
 "Synchronizing Heavily Encoded Data in Bad Weather,"
The Telecommunications and Data Acquisition Progress Report, 42-81: January through March 1985,
 pp. 38-39, May 15, 1985.

Thorman, H. C.,
 "DSN Command System Mark IV-85,"
The Telecommunications and Data Acquisition Progress Report, 42-84: October through December 1985,
 pp. 135-142, February 15, 1986.

Treuhaft, R. N., and G. E. Lanyi,
 "The Effect of the Dynamic Wet Troposphere on VLBI Measurements,"
The Telecommunications and Data Acquisition Progress Report, 42-84: October through December 1985,
 pp. 1-17, February 15, 1986.

Truong, T. K., J. J. Chang, I. S. Hsu (University of Southern California), D. Y. Pei (University of Southern California), and I. S. Reed (University of Southern California),
 "Techniques for Computing the DFT Using the Residue Fermat Number Systems and VLSI,"
The Telecommunications and Data Acquisition Progress Report, 42-81: January through March 1985,
 pp. 18-30, May 15, 1985.

Tyler, S., and J. Loftsson,
 "Periodic Binary Sequence With Very Good Autocorrelation Properties,"
The Telecommunications and Data Acquisition Progress Report, 42-82: April through June 1985,
 pp. 143-158, August 15, 1985.

Ulvestad, J. S., and R. P. Linfield,
 "The Search for Reference Sources for Δ VLBI Navigation of the Galileo Spacecraft,"
The Telecommunications and Data Acquisition Progress Report, 42-84: October through December 1985,
 pp. 152-163, February 15, 1986.

Veruttipong, T., V. Galindo-Israel, and W. Imbriale,
 "Low-Loss Off-Axis Feeds for Symmetric Dual-Reflector Antennas,"
The Telecommunications and Data Acquisition Progress Report, 42-84: October through December 1985,
 pp. 35-59, February 15, 1986.

Wagner, K., and D. Psaltis,
 "Time and Space Integrating Acousto-Optic Folded Spectrum Processing for SETI,"
The Telecommunications and Data Acquisition Progress Report, 42-84: October through December 1985,
 pp. 229-248, February 15, 1986.

Watkins, J. (TRW, California), J. Loftsson, and S. Tyler,
 "A Binary Sequence of Period 60 With Better Autocorrelation Properties Than the Barker Sequence of Period 13,"
The Telecommunications and Data Acquisition Progress Report, 42-82: April through June 1985,
 pp. 159-162, August 15, 1985.

Yuen, J. H., and Q. D. Vo,
 "In Search of a 2-dB Coding Gain,"
The Telecommunications and Data Acquisition Progress Report, 42-83: July through September 1985,
 pp. 26-33, November 15, 1985.

Open Literature

Adams, P. J., R. W. Hellings, and R. L. Zimmerman (University of Oregon),
 "Inhomogeneous Cosmology. II. Linearly Polarized Gravitational Waves,"
Astrophysical Journal,
 Vol. 288, No. 1, pp. 14-21, January 1, 1985.

Ajello, J. M., and B. Franklin,
 "A Study of the Extreme Ultraviolet Spectrum of O₂ by Electron Impact,"
Journal of Chemical Physics,
 Vol. 82, No. 6, pp. 2519-2528, March 15, 1985.

Ajello, J. M., and D. E. Shemansky (University of Arizona),
 "A Reexamination of Important N₂ Cross Sections by Electron Impact With Application to the Dayglow: The Lyman-Birge-Hopfield Band System and NI (119.99 nm),"
Journal of Geophysical Research,
 Vol. 90, No. A10, pp. 9845-9861, October 1, 1985.

Ajello, J. M., and G. E. Thomas (University of Colorado),
 "Predicted Interplanetary Distribution of Lyman α Intensity and Polarization,"
Icarus,
 Vol. 61, pp. 163-170, 1985.

Aston, G.,
 "Ion Accelerator Systems for High-Power 30-cm Thruster Operation,"
Journal of Spacecraft and Rockets,
 Vol. 22, No. 1, pp. 91-96, January 1985.

Aumann, H. H.,
 "IRAS Observations of Matter Around Nearby Stars,"
Publications of the Astronomical Society of the Pacific,
 Vol. 97, pp. 885-891, October 1985.

Back, M. R. (University of California, San Diego), Y. I. Cho, and L. H. Back,
 "Fluid Dynamic Study in a Femoral Artery Branch Casting of Man With Upstream Main Lumen Curvature for Steady Flow,"
Journal of Biomechanical Engineering,
 Vol. 107, pp. 240-248, August 1985.

Bankston, C. P., and L. H. Back,
 "Pool Fire-Ventilation Crossflow Experiments in a Simulated Aircraft Cabin Interior,"
Journal of Aircraft,
 Vol. 22, No. 10, pp. 861-868, October 1985.

Barmatz, M., and P. Collas (California State University, Northridge),
 "Acoustic Radiation Potential on a Sphere in Plane, Cylindrical, and Spherical Standing Wave Fields,"
Journal of the Acoustical Society of America,
 Vol. 77, No. 3, pp. 928-945, March 1985.

Beckman, B. C.,
 "A Water-Vapor Radiometer Error Model,"
IEEE Transactions on Geoscience and Remote Sensing,
 Vol. GE-23, No. 4, pp. 474-478, July 1985.

Benson, K. (Duke University), and M. A. Frerking,
 "Theoretical Efficiency for Triplers Using Nonideal Varistor Diodes at Submillimeter Wavelengths,"
IEEE Transactions on Microwave Theory and Techniques,
 Vol. MTT-33, No. 12, pp. 1367-1374, December 1985.

Biddle, J. R. (California State Polytechnic University, Pomona), T. Fujita, and D. B. Peterson (University of San Diego),
 "Solar Photochemical Process Engineering for Production of Fuels and Chemicals,"
International Journal of Hydrogen Energy,
 Vol. 10, No. 10, pp. 633-643, 1985.

Bills, B. G. (Lunar and Planetary Institute, Texas), and M. Kobrick,
 "Venus Topography: A Harmonic Analysis,"
Journal of Geophysical Research,
 Vol. 90, No. B1, pp. 827-836, January 10, 1985.

Binzel, R. P. (University of Texas at Austin), B. J. Buratti, R. M. Nelson, E. F. Tedesco, and D. J. Tholen (University of Hawaii),
 "The Detection of Eclipses in the Pluto-Charon System,"
Science,
 Vol. 228, pp. 1193-1195, June 7, 1985.

Born, G. H., R. H. Stewart, and C. A. Yamarone,
"TOPEX – A Spaceborne Ocean Observing System,"
Progress in Astronautics and Aeronautics,
Vol. 97, pp. 464-479, 1985.

Brown, L. R., and R. A. Toth,
"Comparison of the Frequencies of NH_3 , CO_2 , H_2O ,
 N_2O , CO , and CH_4 as Infrared Calibration
Standards,"
Journal of the Optical Society of America B,
Vol. 2, No. 5, pp. 842-856, May 1985.

Brown, R. H.,
"Ellipsoidal Geometry in Asteroid Thermal Models:
The Standard Radiometric Model,"
Icarus,
Vol. 64, pp. 53-63, 1985.

Buehler, M. G., and H. R. Sayah,
"Addressable Inverter Matrix for Process and
Device Characterization,"
Solid State Technology,
Vol. 28, No. 5, pp. 185-191, May 1985.

Campbell, J. K., and S. P. Synnott,
"Gravity Field of the Jovian System From Pioneer
and Voyager Tracking Data,"
Astronomical Journal,
Vol. 90, No. 2, pp. 364-372, February 1985.

Carsey, F. D.,
"Summer Arctic Sea Ice Character From Satellite
Microwave Data,"
Journal of Geophysical Research,
Vol. 90, No. C3, pp. 5015-5034, May 20, 1985.

**Carter, B. J., M. M. Evans, H. Frank, S. Kim,
A. Rodriguez, F. D. Tsay, and R. M. Williams,**
"Mechanistic Studies Related to the Safety of
 Li/SOCl_2 Cells,"
Journal of the Electrochemical Society,
Vol. 132, No. 3, pp. 525-528, March 1985.

**Chen, C. P., and S.-Y. S. Hsu (Dunegan
Corporation, California),**
"Acoustic Emission Monitoring Crack Propagation
in Single Crystal Silicon,"
*Review of Progress in Quantitative Nondestructive
Evaluation*,
Vol. 4B, pp. 689-699, 1985.

Chen, C. P., and M. H. Leipold,
"Stress Rate and Proof-Testing of Silicon Wafers,"
Journal of the American Ceramic Society,
Vol. 68, No. 2, pp. C54-C55, February 1985.

Chen, J.-C., J. A. Garba, and M. Trubert,
"Time-Domain Response Envelope for Structural
Dynamic Systems,"
Journal of Spacecraft and Rockets,
Vol. 22, No. 4, pp. 442-449, July 1985.

Cheng, L. J.,
"Structural Defect Characterization of Silicon
Dendritic Web Ribbons,"
*Proceedings of the Eighteenth IEEE Photovoltaic
Specialists Conference, October 21-25, 1985, Las
Vegas, Nevada*,
pp. 1084-1087, 1985.

**Cheng, L. J., K. A. Dumas, M. H. Leipold, and
B. M. Su,**
"Plastic Deformation of Silicon Dendritic Web
Ribbons During the Growth,"
Journal of Crystal Growth,
Vol. 70, pp. 314-318, 1984.

**Cho, Y. I., L. S. Back, and D. W. Crawford, M.D.
(University of Southern California),**
"Effect of Simulated Hyperemia on the Flow Field in
a Mildly Atherosclerotic Coronary Artery Casting of
Man,"
Aviation, Space, and Environmental Medicine,
Vol. 56, pp. 212-219, March 1985.

**Choo, K. Y. (Seoul National University, Korea), and
M.-T. Leu,**
"Determination of $\text{O}_2(^1\Sigma_g^+)$ and $\text{O}_2(^1\Delta_g)$ Yields in
 $\text{Cl} + \text{O}_2$ and $\text{Cl} + \text{O}_3$ Reactions,"
Journal of Physical Chemistry,
Vol. 89, No. 22, pp. 4832-4837, 1985.

**Choo, K. Y. (Seoul National University, Korea), and
M.-T. Leu,**
"Rate Constants for the Quenching of Metastable
 $\text{O}_2(^1\Sigma_g^+)$ Molecules,"
International Journal of Chemical Kinetics,
Vol. 17, pp. 1155-1167, 1985.

Chutjian, A., and S. H. Alajajian,
"Measurements of Electron Attachment Lineshapes
and Cross Sections at Ultra-Low Electron Energies
for $2\text{-C}_4\text{F}_8$, $\text{c-C}_5\text{F}_8$, $\text{c-C}_6\text{F}_6$ and C_7F_8 ,"
Journal of Physics B: Atomic Molecular Physics,
Vol. 18, pp. 4159-4167, 1985.

Chutjian, A., and S. H. Alajajian,
"s-Wave Threshold in Electron Attachment:
Observations and Cross Sections in CCl_4 and SF_6 at
Ultralow Electron Energies,"
Physical Review A,
Vol. 31, No. 5, pp. 2885-2892, May 1985.

Cimino, J.,
"The Evolution of the Spaceborne Imaging Radar
System Toward Eos,"
*AIAA Earth Observing Systems EOS — A Subset of
Space Station, October 8-10, 1985, Virginia Beach,
Virginia,*
1985.

Clare, L. P., and T.-Y. Yan,
"Performance Analysis of the ALOHA Protocol
With Replication in a Fading Channel for the
Mobile Satellite Experiment,"
*IEEE Proceedings Infocom '85, March 26-28, 1985,
Washington, D.C.,*
pp. 377-382, 1985.

**Collins, D. J., D. A. Kiefer (University of Southern
California), I. S. McDermid, and J. B. SooHoo
(University of Southern California),**
"The Role of Reabsorption in the Spectral
Distribution of Phytoplankton Fluorescence
Emission,"
Deep-Sea Research,
Vol. 32, No. 8, pp. 983-1003, 1985.

**Conel, J. E., R. E. Alley, H. R. Lang, and
E. D. Paylor,**
"Preliminary Spectral and Geologic Analysis of
Landsat-4 Thematic Mapper Data, Wind River
Basin Area, Wyoming,"
*IEEE Transactions on Geoscience and Remote
Sensing,*
Vol. GE-23, No. 4, pp. 562-573, July 1985.

Curlander, J. C., B. Holt, and K. J. Hussey,
"Determination of Sea Ice Motion Using Digital
SAR Imagery,"
IEEE Journal of Oceanic Engineering,
Vol. OE-10, No. 4, pp. 358-367, October 1985.

Davarian, F.,
"Fade Margin Calculation for Channels Impaired
by Rician Fading,"
IEEE Transactions on Vehicular Technology,
Vol. VT-34, No. 1, pp. 41-44, February 1985.

Davarian, F., and J. Sumida,
"2400 bit/s DMSK Modem for Mobile Satellite
Service,"
Electronics Letters,
Vol. 21, No. 21, pp. 965-966, October 10, 1985.

Davidson, J. M., and D. W. Trask,
"Utilization of Mobile VLBI for Geodetic
Measurements,"
*IEEE Transactions on Geoscience and Remote
Sensing,*
Vol. GE-23, No. 4, pp. 426-437, July 1985.

**Davis, L., Jr. (California Institute of Technology),
and E. J. Smith,**
"Comments on 'The Z_3 Model of Saturn's Magnetic
Field and the Pioneer 11 Vector Helium
Magnetometer Observations' by J. E. P. Connerney,
M. H. Acuña, and N. F. Ness,"
Journal of Geophysical Research,
Vol. 90, No. A5, pp. 4461-4464, May 1, 1985.

Dickey, J. O., X X Newhall, and J. G. Williams,
"Earth Orientation From Lunar Laser Ranging and
an Error Analysis of Polar Motion Services,"
Journal of Geophysical Research,
Vol. 90, No. B11, pp. 9353-9362, September 30, 1985.

Diner, D. J., and J. V. Martonchik,
"Atmospheric Transmittance From Spacecraft
Using Multiple View Angle Imagery,"
Applied Optics,
Vol. 24, No. 21, pp. 3503-3511, November 1, 1985.

Diner, D. J., and J. V. Martonchik,
"Influence of Aerosol Scattering on Atmospheric
Blurring of Surface Features,"
*IEEE Transactions on Geoscience and Remote
Sensing,*
Vol. GE-23, No. 5, pp. 618-624, September 1985.

Dixon, T. H., M. P. Golombek, and C. L. Thornton,
"Constraints on Pacific Plate Kinematics and
Dynamics with Global Positioning System
Measurements,"
*IEEE Transactions on Geoscience and Remote
Sensing,*
Vol. GE-23, No. 4, pp. 491-501, July 1985.

**Efron, L., A. F. Schanzle (EG&G Washington
Analytical Services Center, Maryland), and
D. K. Yeomans,**
"ISEE-3/ICE Navigation Analysis,"
Journal of the Astronautical Sciences,
Vol. 33, No. 3, pp. 301-323, July 1985.

El-Raheb, M., and P. Wagner,
"Coupled Transient Response of Tiles Bonded
Elastically to a Finite Flexible Plate,"
Journal of the Acoustical Society of America,
Vol. 77, No. 3, pp. 1027-1037, March 1985.

El-Raheb, M., and P. Wagner,
"Harmonic Response of Cylindrical and Toroidal
Shells to an Internal Acoustic Field. Part I:
Theory,"

Journal of the Acoustical Society of America,
Vol. 78, No. 2, pp. 738-746, August 1985.

El-Raheb, M., and P. Wagner,
"Harmonic Response of Cylindrical and Toroidal
Shells to an Internal Acoustic Field. Part II:
Results,"

Journal of the Acoustical Society of America,
Vol. 78, No. 2, pp. 747-757, August 1985.

El-Raheb, M., and P. Wagner,
"Nonlinear Effects in the Coupled Response of Tiles
Bonded to a Plate,"

Journal of the Acoustical Society of America,
Vol. 78, No. 5, pp. 1690-1698, November 1985.

Eng, S. T., T. Andersson, B. Eng, and R. Tell,
"A 250-Mbit/s Ring Local Computer Network Using
1.3- μ m Single-Mode Optical Fibers,"

Journal of Lightwave Technology,
Vol. LT-3, No. 4, pp. 820-823, August 1985.

Estabrook, F. B.,
"Response Functions of Free Mass Gravitational
Wave Antennas,"

General Relativity and Gravitation,
Vol. 17, No. 8, pp. 719-724, August 1985.

**Eubanks, T. M., P. S. Callahan, J. O. Dickey, and
J. A. Steppe,**

"A Spectral Analysis of the Earth's Angular
Momentum Budget,"
Journal of Geophysical Research,
Vol. 90, No. B7, pp. 5385-5404, June 10, 1985.

**Farhoomand, J., G. A. Blake (California Institute of
Technology), M. A. Frerking, and H. M. Pickett,**
"Generation of Tunable Laser Sidebands in the Far-
Infrared Region,"

Journal of Applied Physics,
Vol. 57, No. 5, pp. 1763-1766, March 1, 1985.

**Farhoomand, J., G. A. Blake (California Institute of
Technology), and H. M. Pickett,**

"Direct Measurement of the Fundamental
Rotational Transitions of the OH Radical by Laser
Sideband Spectroscopy,"
Astrophysical Journal,
Vol. 291, No. 1, pp. L19-L22, April 1, 1985.

**Federman, S. R., W. V. Schempp (Washington
University), W. H. Smith (Washington
University), and C. Sneden (University of Texas at
Austin),**

"On the Detection of Rubidium in Diffuse
Interstellar Clouds,"
Astrophysical Journal,
Vol. 290, No. 2, pp. L55-L58, March 15, 1985.

Fedors, R. F., S. Y. Chung, and S. D. Hong,
"Stress-Relaxation and Stress-Strain Behavior of
Poly(ethylene-co-vinylacetate) at Varying
Crosslink Density,"

Journal of Applied Polymer Science,
Vol. 30, pp. 2551-2563, 1985.

Flamant, P. H., and R. T. Menzies,
"On the Use of the Cross Section Concept as Applied to
Pulsed CO₂ Laser Dynamics,"

IEEE Journal of Quantum Electronics,
Vol. QE-21, No. 7, pp. 751-754, July 1985.

**Frerking, M. A., W. D. Langer (AT&T Bell
Laboratories, New Jersey), and R. W. Wilson
(AT&T Bell Laboratories, New Jersey),**
"Structure and Dynamics of the Bok Globule B335,"
Icarus,

Vol. 61, pp. 22-26, 1985.

**Fu, L.-L., and D. B. Chelton (Oregon State
University),**
"Observing Large-Scale Temporal Variability of
Ocean Currents by Satellite Altimetry: With
Application to the Antarctic Circumpolar Current,"
Journal of Geophysical Research,
Vol. 90, No. C3, pp. 4721-4739, May 20, 1985.

Garrett, H. B., and G. C. Spitale,
"Magnetospheric Plasma Modeling (0-100 keV),"
Journal of Spacecraft and Rockets,
Vol. 22, No. 3, pp. 231-244, May 1985.

Gary, B. L., M. A. Janssen, and S. J. Keihm,
"Optimum Strategies and Performance for the
Remote Sensing of Path-Delay using Ground-Based
Microwave Radiometers,"

*IEEE Transactions on Geoscience and Remote
Sensing*,
Vol. GE-23, No. 4, pp. 479-484, July 1985.

**Goetz, A. F. H., B. N. Rock, J. E. Solomon, and
G. Vane,**
"Imaging Spectrometry for Earth Remote Sensing,"
Science,
Vol. 228, pp. 1147-1153, June 7, 1985.

Golombek, M. P.,
"Fault Type Predictions From Stress Distributions
on Planetary Surfaces: Importance of Fault
Initiation Depth,"

Journal of Geophysical Research,
Vol. 90, No. B4, pp. 3065-3074, March 10, 1985.

**Grundfest, W. S., M.D. (Cedars-Sinai Medical
Center), M. Fishbein, M.D. (Cedars-Sinai
Medical Center), J. S. Forrester, M.D. (Cedars-
Sinai Medical Center), T. Goldenberg,
J. B. Laudenslager, F. Litvack, M.D. (Cedars-
Sinai Medical Center), I. S. McDermid,
L. Morgenstern, M.D. (Cedars-Sinai Medical
Center), T. J. Pacala, D. M. Rider, and H. J. Swan,
M.D. (Cedars-Sinai Medical Center),**

"Laser Ablation of Human Atherosclerotic Plaque
Without Adjacent Tissue Injury,"

Journal of the American College of Cardiology,
Vol. 5, No. 4, pp. 929-933, April 1985.

**Grunthaner, F. J., P. J. Grunthaner, M. H. Hecht,
and D. Lawson,**

"The Chemical Structure of the SiO₂/Si Interface as
Determined by High Resolution XPS: Suboxide
Distributions and the Formation of Electrically
Active Interface States,"

*Insulating Films on Semiconductors, Proceedings
of the International Conference INFOS 85, April 16-
18, 1985, Toulouse, France,*
pp. 1-8, 1985.

Gulkis, S.,

"Optimum Search Strategy for Randomly
Distributed CW Transmitters,"

*The Search for Extraterrestrial Life: Recent
Developments,*
pp. 411-417, 1985.

**Hacking, P., C. Beichman, T. Chester, J. Emerson
(Queen Mary College, United Kingdom), F. Gillett
(Kitt Peak National Observatory, Arizona),
H. Habing (Sterrewacht Leiden, The Netherlands),
G. Helou, J. Houck (Cornell University),
G. Neugebauer (California Institute of Technology),
F. Olon (Stichting voor Ruimteonderzoek, The
Netherlands), M. Rowan-Robinson (Queen Mary
College, United Kingdom), B. T. Soifer, and
D. Walker (Queen Mary College, United Kingdom),**
"The Brightest High-Latitude 12-Micron IRAS
Sources,"

*Publications of the Astronomical Society of the
Pacific,*
Vol. 97, No. 593, pp. 616-633, July 1985.

**Hadek, V., C. A. Beichman, J. Farhoomand,
M. D. Jack (Hughes Aircraft Company, California),
and D. M. Watson (California Institute of
Technology),**

"Extension of Long Wavelength Response by
Modulation Doping in Extrinsic Germanium
Infrared Detectors,"

Applied Physics Letters,
Vol. 46, No. 4, pp. 403-405, February 15, 1985.

**Hadek, V., C. A. Beichman, M. D. Jack (Hughes
Aircraft Company, California), and D. M. Watson
(California Institute of Technology),**

"Far-Infrared Transmittance of Boron-Implanted
Germanium at Liquid-Helium Temperatures,"

Physical Review B,
Vol. 31, No. 6, pp. 3630-3634, March 15, 1985.

**Hanner, M. S., D. K. Aitken (Melbourne
University, Australia), R. Knacke (State University
of New York at Stony Brook), S. McCorkle (State
University of New York at Stony Brook), P. F. Roche
(Anglo-Australian Observatory, Australia), and
A. T. Tokunaga (University of Hawaii),**

"Infrared Spectrophotometry of Comet IRAS-Araki-
Alcock (1983d): A Bare Nucleus Revealed?,"

Icarus,
Vol. 62, pp. 97-109, 1985.

**Hanner, M. S., J. D. Bregman (NASA Ames
Research Center), J. Gradie (University of Hawaii),
L. Lebofsky (University of Arizona), D. F. Lester
(University of Texas at Austin), E. Tedesco
(University of Hawaii), A. T. Tokunaga
(University of Hawaii), G. J. Veeder (University of
Hawaii), and F. C. Witteborn (NASA Ames
Research Center),**

"The Dust Coma of Periodic Comet Churyumov-
Gerasimenko (1982 VIII),"

Vol. 64, pp. 11-19, 1985.

**Hanner, M. S., R. Knacke (State University of New
York at Stony Brook), Z. Sekanina, and
A. T. Tokunaga (University of Hawaii),**

"Dark Grains in Comet Crommelin,"

Astronomy and Astrophysics,
Vol. 152, pp. 171-181, 1985.

**Hayati, S., and M. Mirmirani (California State
University, Los Angeles),**

"Improving the Absolute Positioning Accuracy of
Robot Manipulators,"

Journal of Robotic Systems,
Vol. 2, No. 4, pp. 397-413, 1985.

Hecht, M. H., and F. J. Grunthaner,
"Studies of the Si/SiO₂ Interface Using Synchrotron Radiation,"
Spectroscopic Characterization Techniques for Semiconductor Technology II, January 21-22, 1985, Los Angeles, California,
SPIE Vol. 524, pp. 18-24, 1985.

Hecht, M. H., F. J. Grunthaner, J. Maserjian, R. P. Vasquez, and N. Zamani,
"A Novel X-Ray Photoelectron Spectroscopy Study of the Al/SiO₂ Interface,"
Journal of Applied Physics,
Vol. 57, No. 12, pp. 5256-5261, June 15, 1985.

Helou, G., M. Rowan-Robinson (Queen Mary College, United Kingdom), and B. T. Soifer (California Institute of Technology),
"Thermal Infrared and Nonthermal Radio: Remarkable Correlation in Disks of Galaxies,"
Astrophysical Journal,
Vol. 298, No. 1, pp. L7-L11, November 1, 1985.

Hilland, J. E., D. B. Chelton (Oregon State University), and E. G. Njoku,
"Production of Global Sea Surface Temperature Fields for the Jet Propulsion Laboratory Workshop Comparisons,"
Journal of Geophysical Research,
Vol. 90, No. C6, pp. 11,642-11,650, November 20, 1985.

Hinkley, E. D., J. R. Lesh, and R. T. Menzies,
"Lasers in Space,"
Laser Focus,
February 1985.

Hintz, G. R., and C. Chadwick,
"A Design Technique for Trajectory Correction Maneuvers,"
Journal of the Astronautical Sciences,
Vol. 33, No. 4, pp. 429-443, October 1985.

Hintz, G. R., and J. M. Longuski,
"Error Analyses for the Delivery of a Spinning Probe to Jupiter,"
Journal of Guidance, Control, and Dynamics,
Vol. 8, No. 3, pp. 384-390, May 1985.

Holt, B., and S. A. Digby (Canada Centre for Remote Sensing, Canada),
"Processes and Imagery of First-Year Fast Sea Ice During the Melt Season,"
Journal of Geophysical Research,
Vol. 90, No. C3, pp. 5045-5062, May 20, 1985.

Ih, C.-H. C., C. T. Leondes (University of California, Los Angeles), and S. J. Wang,
"Application of Adaptive Control to Space Stations,"
AIAA Guidance, Navigation and Control, August 19-21, 1985, Snowmass, Colorado,
pp. 709-724, 1985.

Ih, C.-H. C., C. T. Leondes (University of California, Los Angeles), and S. J. Wang,
"An Investigation of Adaptive Control Techniques for Space Stations,"
Proceedings of the American Control Conference, June 19-21, 1985, Boston, Massachusetts,
pp. 81-94, 1985.

Jaffe, L. D.,
"Spillage and Flux Density on a Receiver Aperture Lip,"
Solar Energy,
Vol. 35, No. 6, pp. 539-540, 1985.

Janssen, M. A.,
"A New Instrument for the Determination of Radio Path Delay Due to Atmospheric Water Vapor,"
IEEE Transactions on Geoscience and Remote Sensing,
Vol. GE-23, No. 4, pp. 485-490, July 1985.

Johnson, R. A., R. T. Menzies, and C. R. Webster,
"Microprocessor-Controlled Laser Tracker for Atmospheric Sensing,"
Review of Scientific Instruments,
Vol. 56, No. 4, pp. 547-556, April 1985.

Jones, D. L.,
"Does Orientation Affect the Smoothness of Parsec-Scale Radio Jets?,"
Astronomical Journal,
Vol. 90, No. 8, pp. 1446-1448, August 1985.

Jones, R. M., and J. A. Scott-Monck,
"Power Supplies for Primary Electric Propulsion Missions,"
Journal of Propulsion and Power,
Vol. 1, No. 3, pp. 163-171, May 1985.

Kamide, Y. (Kyoto Sangyo University, Japan), and J. A. Slavin,
"Solar Wind—Magnetosphere Coupling,"
EOS,
Vol. 66, No. 38, pp. 666-668, September 17, 1985.

Katz, J.,
"Power Conversion Efficiency of Semiconductor Injection Lasers and Laser Arrays in CW Operation,"
IEEE Journal of Quantum Electronics,
Vol. QE-21, No. 12, pp. 1854-1857, December 1985.

Katz, J., and W. K. Marshall,
"Gain Saturation Effects in Supermodes of Phase-Locked Semiconductor Laser Arrays,"
Electronics Letters,
Vol. 21, No. 21, pp. 974-976, October 10, 1985.

Kavaya, M. J., and R. T. Menzies,
"Lidar Aerosol Backscatter Measurements: Systematic, Modeling, and Calibration Error Considerations,"
Applied Optics,
Vol. 24, No. 21, pp. 3444-3453, November 1, 1985.

Keyser, L. F., K. Y. Choo (Seoul National University, Korea), and M. T. Leu,
"Yields of $O_2(b^1\Sigma_g^+)$ from Reactions of HO_2 ,"
International Journal of Chemical Kinetics,
Vol. 17, pp. 1169-1185, 1985.

Khakoo, M. A., and S. K. Srivastava,
"The Kinetic Energy Spectrum of Protons Produced by the Dissociative Ionisation of H_2 by Electron Impact,"
Journal of Physics B: Atomic and Molecular Physics,
Vol. 18, pp. 2525-2540, 1985.

Kim, S. S., B. J. Carter, and F. D. Tsay,
"The Chemistry of $Li/SOCl_2$ Cells: An ESR Study of Carbon Electrodes,"
Journal of the Electrochemical Society,
Vol. 132, No. 2, pp. 335-338, February 1985.

Klein, M. J., and S. Gulkis,
"SETI: The Microwave Search Problem and the NASA Sky Survey Approach,"
The Search for Extraterrestrial Life: Recent Developments,
pp. 397-403, 1985.

Kleine, H.,
"Methodology for System Description Using the Software Design and Documentation Language,"
System Description Methodologies, Proceedings of the IFIP TC2 Conference on System Description Methodologies, May 23-27, 1983, Kecskemet, Hungary,
pp. 111-136, 1985.

Kuiper, T. B. H., R. P. Linfield, G. M. Resch, S. P. Synnott, and E. F. Tubbs,
"Aperture Synthesis Using Orbiting Telescopes,"
Radio Science,
Vol. 20, No. 5, pp. 1105-1117, September 1985.

Kwok, J. H., and P. E. Nacozzy (University of Texas at Austin),
"Periodic Orbits of the General Three-Body Problem for the Sun-Jupiter-Saturn System,"
Celestial Mechanics,
Vol. 35, pp. 289-303, 1985.

Lambrigtsen, B. H. (Institute for Atmospheric Optics and Remote Sensing, Virginia), and R. K. Kakar,
"Estimation of Atmospheric Moisture Content from Microwave Radiometric Measurements during CCOPE,"
Journal of Climate and Applied Meteorology,
Vol. 24, No. 3, pp. 266-274, March 1985.

Larson, S. M. (University of Arizona), and Z. Sekanina,
"Coma Morphology and Dust-Emission Pattern of Periodic Comet Halley. III. Additional High-Resolution Images Taken in 1910,"
Astronomical Journal,
Vol. 90, No. 5, pp. 823-826 and 917-923, May 1985.

Laskin, R. A., and E. H. Kopf,
"High Precision Active Nutation Control of a Momentum Biased Spacecraft with Flexible Appendages,"
Journal of Guidance, Control, and Dynamics,
Vol. 8, No. 1, pp. 78-85, January 1985.

Lawton, T. B.,
"Spatial-Frequency Spectrum of Patterns Changes the Visibility of Spatial-Phase Differences,"
Journal of the Optical Society of America,
Vol. 2, No. 7, pp. 1140-1152, July 1985.

Lawton, W. M.,
"Solution of the Two-Dimensional Spectral Factorization Problem,"
Proceedings of the IEEE,
Vol. 73, No. 2, pp. 370-371, February 1985.

Lee, C. P., M. J. Lyell, and T. G. Wang,
"Viscous Damping of the Oscillations of a Rotating Simple Drop,"
Physics of Fluids,
Vol. 28, No. 11, pp. 3187-3188, November 1985.

- Lee, P. J.,**
 "New Short Constraint Length, Rate 1/N
 Convolutional Codes Which Minimize the Required
 SNR for Given Desired Bit Error Rates,"
IEEE Transactions on Communications,
 Vol. COM-33, No. 2, pp. 171-177, February 1985.
- Lee, P. J.,**
 "Performance of a Normalized Energy Metric
 Without Jammer State Information for an
 FH/MFSK System in Worst Case Partial Band
 Jamming,"
IEEE Transactions on Communications,
 Vol. COM-33, No. 8, pp. 869-877, August 1985.
- Leung, E. W., and T. G. Wang,**
 "Force on a Heated Sphere in a Horizontal Plane
 Acoustic Standing Wave Field,"
Journal of the Acoustical Society of America,
 Vol. 77, No. 5, pp. 1686-1691, May 1985.
- Leung, P. L.,**
 "Characteristics of Electromagnetic Interference
 Generated During Discharge of Mylar Samples,"
IEEE Transactions on Nuclear Science,
 Vol. NS-31, No. 6, pp. 1587-1590, December 1984.
- Levitt, B. K.,**
 "Strategies for FH/MFSK Signaling with Diversity
 in Worst-Case Partial-Band Noise,"
*IEEE Journal on Selected Areas in
 Communications*,
 Vol. SAC-3, No. 5, pp. 622-626, September 1985.
- Lewis, B. F., R. Fernandez, F. J. Grunthaner,
 T. C. Lee (University of Southern California), and
 A. Madhukar (University of Southern California),**
 "Reflection High Energy Electron Diffraction
 Intensity Behavior During Homoepitaxial
 Molecular Beam Epitaxy Growth of GaAs and
 Implications for Growth Kinetics and
 Mechanisms,"
Journal of Vacuum Science and Technology B,
 Vol. 3, No. 5, pp. 1317-1322, September 1985.
- Lewis, B. F., R. Fernandez, F. J. Grunthaner, and
 A. Madhukar (University of Southern California),**
 "Arsenic-Induced Intensity Oscillations in
 Reflection High-Energy Electron Diffraction
 Measurements,"
Journal of Vacuum Science and Technology B,
 Vol. 4, No. 2, pp. 560-563, March 1986.
- LeDuc, H. G., S. K. Khanna, J. Lambe, and
 A. P. Thakoor,**
 "Observation of Adsorbate-Induced Surface States by
 Elastic Electron Tunneling Spectroscopy,"
Journal of Applied Physics,
 Vol. 58, No. 6, pp. 2266-2269, September 15, 1985.
- Li, F.-K., J. C. Curlander, D. N. Held, and C. Wu,**
 "Doppler Parameter Estimation for Spaceborne
 Synthetic-Aperture Radars,"
*IEEE Transactions on Geoscience and Remote
 Sensing*,
 Vol. GE-23, No. 1, pp. 47-56, January 1985.
- Lindal, G. F., V. R. Eshleman (Stanford
 University), and D. N. Sweetnam,**
 "The Atmosphere of Saturn: An Analysis of the
 Voyager Radio Occultation Measurements,"
Astronomical Journal,
 Vol. 90, No. 6, pp. 1136-1146, June 1985.
- Linfield, R.,**
 "VLBI Observations of the Jet in Cygnus A,"
Astrophysical Journal,
 Vol. 295, No. 2, pp. 463-465, August 15, 1985.
- Liu, H., J. A. Davis (San Diego State University),
 and R. A. Lilly (San Diego State University),**
 "Optical-Data-Processing Properties of a Liquid-
 Crystal Television Spatial Light Modulator,"
Optics Letters,
 Vol. 10, No. 12, pp. 635-637, December 1985.
- Long, D. G.,**
 "Book Review: 'Array Signal Processing'," *IEEE Transactions on Acoustics, Speech, and Signal
 Processing*,
 Vol. ASSP-33, No. 4, p. 1346, October 1985.
- Luke, K. L. (California State University, Long
 Beach), L.-j. Cheng, and O. von Roos,**
 "Quantification of the Effects of Generation Volume,
 Surface Recombination Velocity, and Diffusion
 Length on the Electron-Beam-Induced Current and
 Its Derivative: Determination of Diffusion Lengths
 in the Low Micron and Submicron Ranges,"
Journal of Applied Physics,
 Vol. 57, No. 6, pp. 1978-1984, March 15, 1985.
- Lyell, M. J. (National Research Council,
 Washington, D.C.), and T. G. Wang,**
 "Oscillations of a Compound Drop System
 Undergoing Rotation,"
Physics of Fluids,
 Vol. 28, No. 4, pp. 1023-1026, April 1985.

- Man, G. K., and F. O. Eke,**
 "Effects of Payload Motions on the Nutational Stability of the Galileo Spacecraft,"
Journal of Guidance, Control, and Dynamics,
 Vol. 8, No. 6, pp. 683-688, November 1985.
- Marshall, W. K., and J. Katz,**
 "Waveguide PIN Junction Electrooptic Phase Modulators: Theoretical Analysis and Design Criteria,"
Applied Optics,
 Vol. 24, No. 13, pp. 1996-2000, July 1, 1985.
- Martonchik, J. V., and D. J. Diner,**
 "Three-Dimensional Radiative Transfer Using a Fourier-Transform Matrix-Operator Method,"
Journal of Quantitative Spectroscopy and Radiative Transfer,
 Vol. 34, No. 2, pp. 133-148, 1985.
- McConkey, J. W. (University of Windsor, Canada), R. McAdams (Queen's University of Belfast, Northern Ireland), J. C. Nickel (University of California, Riverside), and S. Trajmar,**
 "Rotationally Resolved Electron-Photon Coincidence Study of $H_2(d^3\Pi_u)$ Excitation,"
Journal of Physics B: Atomic and Molecular Physics,
 Vol. 18, pp. L207-L212, 1985.
- McLaughlin, W. I., and D. M. Wolff,**
 "Voyager at the Seventh Planet,"
Spaceflight,
 Vol. 27, November 1985.
- Mease, K. D., and F. A. McCreary,**
 "Atmospheric Guidance Law for Planar Skip Trajectories,"
AIAA 12th Atmospheric Flight Mechanics Conference, August 19-21, 1985, Snowmass, Colorado,
 pp. 408-415, 1985.
- Mease, K. D., M. S. Ryne, and L. J. Wood,**
 "An Approach to Autonomous, Onboard Orbit Determination,"
Journal of the Astronautical Sciences,
 Vol. 33, No. 2, pp. 163-178, April 1985.
- Mease, K. D., and N. X. Vinh (University of Michigan),**
 "Minimum-Fuel Aeroassisted Coplanar Orbit Transfer,"
Journal of Guidance, Control, and Dynamics,
 Vol. 8, No. 1, pp. 134-141, January 1985.
- Milman, M. H., and R. E. Scheid, Jr.,**
 "A Note on Finite-Dimensional Estimators for Infinite-Dimensional Systems,"
IEEE Transactions on Automatic Control,
 Vol. AC-30, No. 12, pp. 1214-1217, December 1985.
- Mobasser, S. R., and T. R. Hart (Stevens Institute of Technology, New Jersey),**
 "Raman Scattering From Phonons and Magnons in Magnetic Semiconductor, MnTe,"
Spectroscopic Characterization Techniques for Semiconductor Technology II,
 SPIE Vol. 524, pp. 137-144, 1985.
- Mokashi, A. R., T. Daud, and A. R. Kachare,**
 "Simulation Analysis of a Novel High Efficiency Silicon Solar Cell,"
Proceedings of the Eighteenth IEEE Photovoltaic Specialists Conference, October 21-25, 1985, Las Vegas, Nevada,
 pp. 573-577, 1985.
- Molina, L. T., M. J. Molina, R. A. Stachnik, and R. D. Tom,**
 "An Upper Limit to the Rate of the $HCl + ClONO_2$ Reaction,"
Journal of Physical Chemistry,
 Vol. 89, No. 18, pp. 3779-3781, 1985.
- Morabito, D. D.,**
 "Submilliarcsecond VLBI Observations of the Close Pair GC 1342+662 and GC 1342+663,"
Astronomical Journal,
 Vol. 90, No. 6, pp. 1004-1006, June 1985.
- Morabito, D. D., J. Faulkner (University of Southern California), D. L. Jauncey (CSIRO, Sydney, Australia), R. P. Linfield, R. A. Preston, M. A. Slade, and A. E. Wehrle (University of California, Los Angeles),**
 "Arcsecond Positions for Milliarcsecond VLBI Nuclei of Extragalactic Radio Sources. III. 74 Sources,"
Astronomical Journal,
 Vol. 90, No. 4, pp. 590-594, April 1985.
- Mottinger, N. A., B. G. Bills (Lunar and Planetary Institute, Texas), and W. L. Sjogren,**
 "Venus Gravity: A Harmonic Analysis and Geophysical Implications,"
Journal of Geophysical Research,
 Vol. 90, pp. C739-C756, February 15, 1985.

- Mukherjee, S. P.,**
 "Random and Block Copolymerization in Metal Oxide Gel Synthesis From Metalorganic Compounds,"
Journal of Non-Crystalline Solids,
 Vol. 73, pp. 639-641, 1985.
- Mukherjee, S. P., and S. K. Sharma (University of Hawaii),**
 "A Comparative Raman Study of the Structures of Conventional and Gel-Derived Glasses in the SiO₂-GeO₂ System,"
Journal of Non-Crystalline Solids,
 Vol. 71, pp. 317-325, 1985.
- Neilson, G. F., G. L. Smith, and M. C. Weinberg,**
 "Effect of Chloride Incorporation on the Crystallization of Zirconium-Barium-Lanthanum-Aluminum Fluoride Glass,"
Journal of the American Ceramic Society,
 Vol. 68, No. 11, pp. 629-632, November 1985.
- Neugebauer, M.,**
 "Alignment of Velocity and Field Changes Across Tangential Discontinuities in the Solar Wind,"
Journal of Geophysical Research,
 Vol. 90, No. A7, pp. 6627-6630, July 1, 1985.
- Neugebauer, M.,**
 "Reply,"
Journal of Geophysical Research,
 Vol. 90, No. A6, p. 5364, June 1, 1985.
- Neugebauer, M.,**
 "Space Missions to Comets,"
Physics Today,
 pp. 2-8, November 1985.
- Newburn, R. L., Jr., and H. Spinrad (University of California, Berkeley),**
 "Spectrophotometry of Seventeen Comets. II. The Continuum,"
Astronomical Journal,
 Vol. 90, No. 12, pp. 2591-2608, December 1985.
- Nichols, D. K., C. J. Malone, W. E. Price, and L. S. Smith,**
 "A Summary of JPL Single Event Upset Test Data From May 1982, Through January 1984,"
IEEE Transactions on Nuclear Science,
 Vol. NS-31, No. 6, pp. 1186-1189, December 1984.
- Nichols, D. K., W. E. Price, L. S. Smith, and G. A. Soli,**
 "The Single Event Upset (SEU) Response to 590 MeV Protons,"
IEEE Transactions on Nuclear Science,
 Vol. NS-31, No. 6, pp. 1565-1567, December 1984.
- Njoku, E. G.,**
 "Satellite-Derived Sea Surface Temperature: Workshop Comparisons,"
Bulletin of the American Meteorological Society,
 Vol. 66, No. 3, pp. 274-281, March 1985.
- Njoku, E. G., T. P. Barnett (Scripps Institution of Oceanography, California), R. M. Laurs (National Oceanic and Atmospheric Administration, California), and A. C. Vastano (Texas A & M University),**
 "Advances in Satellite Sea Surface Temperature Measurement and Oceanographic Applications,"
Journal of Geophysical Research,
 Vol. 90, No. C6, pp. 11,573-11,586, November 20, 1985.
- Njoku, E. G., and R. L. Bernstein (SeaSpace, California),**
 "Satellite Sea Surface Temperature Comparisons: Preface,"
Journal of Geophysical Research,
 Vol. 90, No. C6, p. 11,571, November 20, 1985.
- Njoku, E. G., and E. K. Smith,**
 "Microwave Antenna Temperature of the Earth from Geostationary Orbit,"
Radio Science,
 Vol. 20, No. 3, pp. 591-599, May 1985.
- O'Connor, D. B. (University of California, Riverside), J. H. Clark (University of California, Berkeley), D. R. Coulter, A. Gupta, G. W. Scott (University of California, Riverside), S. P. Webb (University of California, Berkeley), and S. W. Yeh (University of California, Berkeley),**
 "Direct Observation of the Excited-State Proton Transfer and Decay Kinetics of Internally Hydrogen-Bonded Photostabilizers in Copolymer Films,"
Chemical Physics Letters,
 Vol. 121, No. 4,5, pp. 417-422, November 15, 1985.
- Olsen, E. T., S. Gulkis, and A. Lokshin,**
 "An Analysis of the Elements of an All Sky Survey,"
The Search for Extraterrestrial Life: Recent Developments,
 pp. 405-410, 1985.

Orient, O. J., S. H. Alajajian, and A. Chutjian,
"Reversal Ion Source: A New Source of Negative Ion Beams,"
Review of Scientific Instruments,
Vol. 56, No. 1, pp. 69-72, January 1985.

Orient, O. J., and S. K. Srivastava,
"Cross Sections for H⁻ and Cl⁻ Production from HCl by Dissociative Electron Attachment,"
Physical Review A,
Vol. 32, No. 5, pp. 2678-2681, November 1985.

Ostro, S. J.,
"Radar Observations of Asteroids and Comets,"
Publications of the Astronomical Society of the Pacific,
Vol. 97, pp. 877-884, October 1985.

Ostro, S. J., D. B. Campbell (National Astronomy and Ionosphere Center, Puerto Rico), and I. I. Shapiro (Harvard-Smithsonian Center, Massachusetts),
"Mainbelt Asteroids: Dual-Polarization Radar Observations,"
Science,
Vol. 229, pp. 442-446, August 2, 1985.

Otoshi, T. Y., W. V. T. Rusch (University of Southern California), and L. E. Young,
"VLBI Collimation-Tower Technique for Time-Delay Studies of a Large Ground-Station Communications Antenna,"
IEEE Transactions on Antennas and Propagation,
Vol. AP-33, No. 5, pp. 549-556, May 1985.

Ott, F. M., R. B. Somoano, and S. P. S. Yen,
"Review of the NASA Voyager Spacecraft Polycarbonate Capacitor Failure Incident,"
IEEE Transactions on Electrical Insulation,
Vol. EI-20, No. 1, pp. 47-54, February 1985.

Parthasarathy, S. P., L. H. Back, and Y. I. Cho,
"Sound Generation by Flow Over Relatively Deep Cylindrical Cavities,"
Journal of the Acoustical Society of America,
Vol. 78, No. 5, pp. 1785-1795, November 1985.

Payne, D. G., and H. Cohn (Indiana University),
"The Stability of Confined Radio Jets: The Role of Reflection Modes,"
Astrophysical Journal,
Vol. 291, No. 2, pp. 655-667, April 15, 1985.

Peng, S. T. J.,
"Constitutive Equations of Ageing Polymeric Materials,"
Journal of Materials Science,
Vol. 20, pp. 1920-1928, 1985.

Petersen, G. R.,
"Determining a Carbohydrate Profile for *Hansenula Polymorpha*,"
Enzyme and Microbiology Technology,
Vol. 7, pp. 339-345, July 1985.

Phillips, W. M., and J. W. Stearns,
"Advanced Latent Heat of Fusion Thermal Energy Storage for Solar Power Systems,"
Proceedings of the 20th Intersociety Energy Conversion Engineering Conference, August 18-23, 1985, Miami Beach, Florida,
pp. 2.384-2.391, 1985.

Poynter, R. L., and H. M. Pickett,
"Submillimeter, Millimeter, and Microwave Spectral Line Catalog,"
Applied Optics,
Vol. 24, No. 14, pp. 2235-2240, July 15, 1985.

Pravdo, S. H., R. H. Becker (University of California, Davis), J. Cantó (Universidad Nacional Autonoma de México), S. Curiel (Universidad Nacional Autonoma de México), L. F. Rodríguez (Universidad Nacional Autonoma de México), K. Sellgren (University of Hawaii), and J. M. Torrelles (Harvard-Smithsonian Center for Astrophysics, Massachusetts),
"Detection of Radio Continuum Emission From Herbig-Haro Objects 1 and 2 and From Their Central Exciting Source,"
Astrophysical Journal,
Vol. 293, No. 1, pp. L35-L38, June 1, 1985.

Preston, R. A., J. Faulkner (University of Southern California), D. L. Jauncey (CSIRO, Sydney, Australia), D. D. Morabito, G. D. Nicolson (CSIR, Johannesburg, South Africa), and J. G. Williams,
"A VLBI Survey at 2.29 GHz,"
Astronomical Journal,
Vol. 90, No. 9, pp. 1599-1641, September 1985.

Rahmat-Samii, Y., and M. S. Gatti,
"Far-Field Patterns of Spaceborne Antennas From Plane-Polar Near-Field Measurements,"
IEEE Transactions on Antennas and Propagation,
Vol. AP-33, No. 6, pp. 638-648, June 1985.

Rahmat-Samii, Y., and S.-W. Lee (University of Illinois),

"Vector Diffraction Analysis of Reflector Antennas with Mesh Surfaces,"

IEEE Transactions on Antennas and Propagation,
Vol. AP-33, No. 1, pp. 76-90, January 1, 1985.

Reid, M. S., C. T. Force (NASA Headquarters), and P. T. Lyman,

"Communicating Across the Solar System,"

Acta Astronautica,

Vol. 12, No. 9, pp. 683-691, 1985.

Rhim, W. K., M. Collender, D. D. Elleman, M. T. Hyson, and W. T. Simms,

"Development of an Electrostatic Positioner for Space Material Processing,"

Review of Scientific Instruments,

Vol. 56, No. 2, pp. 307-317, February 1985.

Riegler, G. R., A. S. Jacobson, J. C. Ling,

W. A. Mahoney, and W. A. Wheaton,

"The Gamma-Ray Spectrum of the Galactic Center Region,"

Astrophysical Journal,

Vol. 294, No. 1, pp. L13-L15, July 1, 1985.

Rock, B. N., J. E. Vogelman, and D. L. Williams (NASA Goddard Space Flight Center),

"Field and Airborne Spectral Characterization of Suspected Acid Deposition Damage in Red Spruce (*Picea Rubens*) From Vermont,"

1985 Machine Processing of Remotely Sensed Data Symposium,
pp. 71-81, 1985.

Sahai, R. (University of Texas at Austin), and P. G. Wannier,

"CO 4.6 Micron Emission Lines From the IRC +10216 Inner Envelope,"

Astrophysical Journal,

Vol. 299, No. 1, pp. 424-442, December 1, 1985.

Salazar, R. P., S. W. Petrick, and L.-C. Wen,

"System Test and Flight Results from Infrared Astronomical Satellite External Thermal Subsystem,"

Journal of Spacecraft and Rockets,

Vol. 22, No. 2, pp. 166-169, March 1985.

Saunders, R. S.,

"Questions for the Geologic Exploration of Venus,"

Journal of the British Interplanetary Society,

Vol. 37, pp. 435-441, 1984.

Schlom, D. G. (Stanford University), and P. J. Shlichta,

"Comparison of Theory With Experiment in Convectionless Growth of Crystals From Solution,"

Journal of Crystal Growth,

Vol. 71, pp. 791-794, 1985.

Seaman, C. H., and D. Sonnbend,

"Semi Drag Free Gravity Gradiometry,"

Journal of the Astronautical Sciences,

Vol. 33, No. 4, pp. 353-365, October 1985.

Sekanina, Z.,

"Light Variations of Periodic Comet Halley Beyond 7 AU,"

Astronomy and Astrophysics,

Vol. 148, pp. 299-308, 1985.

Sekanina, Z.,

"Nucleus Precession of Periodic Comet Comas Solá,"

Astronomical Journal,

Vol. 90, No. 7, pp. 1370-1381, July 1985.

Sekanina, Z.,

"Precession Model for the Nucleus of Periodic Comet Giacobini-Zinner,"

Astronomical Journal,

Vol. 90, No. 5, pp. 827-845, May 1985.

Sekanina, Z., and D. K. Yeomans,

"Orbital Motion, Nucleus Precession, and Splitting of Periodic Comet Brooks 2,"

Astronomical Journal,

Vol. 90, No. 11, pp. 2335-2352, November 1985.

Selzer, R. H.,

"Computer Processing of Radiographic Images,"

Diagnostic Imaging Applications, October 8-9, 1984, Amsterdam, The Netherlands,

SPIE Vol. 516, pp. 16-27, 1984.

Simon, M. K.,

"Double Symbol Error Rates for Differential Detection of Narrow-Band FM,"

IEEE Transactions on Communications,

Vol. COM-33, No. 5, pp. 394-398, May 1985.

Simon, M. K.,

"On the Probability Density Function of the Squared Envelope of a Sum of Random Phase Vectors,"

IEEE Transactions on Communications,

Vol. COM-33, No. 9, pp. 993-996, September 1985.

Simon, M. K., and C. C. Wang,
"Bit Synchronization of Differentially Detected
MSK and GMSK,"
*IEEE International Conference on
Communications, June 23-26, 1985,
Chicago, Illinois,*
pp. 583-590, 1985.

Simon, M. K., and C. C. Wang,
"Two-Bit Differential Detection of MSK,"
*Global Telecommunications Conference, November
26-29, 1984, Atlanta, Georgia,*
pp. 740-745, 1984.

**Simonaitis, R. (Pennsylvania State University),
and M. T. Leu,**
"Rate Constant for the Reaction $\text{Cl} + \text{HO}_2\text{NO}_2 \rightarrow$
Products,"
International Journal of Chemical Kinetics,
Vol. 17, pp. 293-301, 1985.

**Simonaitis, R. (Pennsylvania State University),
and M. T. Leu,**
"An Upper Limit for the Absorption Cross Section of
the Oxygen $\text{C}^3\Delta_u \rightarrow \text{a}^1\Delta_g$ Transition,"
Geophysical Research Letters,
Vol. 12, No. 12, pp. 829-832, December 1985.

**Sinha, M. P., and S. K. Friedlander (University
of California, Los Angeles),**
"Real-Time Measurement of Sodium Chloride in
Individual Aerosol Particles by Mass
Spectrometry,"
Analytical Chemistry,
Vol. 57, No. 9, pp. 1880-1883, August 1985.

Sipes, D. L., Jr.,
"Highly Efficient Neodymium: Yttrium
Aluminum Garnet Laser End Pumped by a
Semiconductor Laser Array,"
Applied Physics Letters,
Vol. 47, No. 2, pp. 74-76, July 15, 1985.

Sipes, D. L., Jr.,
"Nd:YAG End Pumped by Semiconductor Laser
Arrays for Free Space Optical Communications,"
*IEEE Military Communications Conference,
October 20-23, 1985, Boston, Massachusetts,*
pp. 104-108, 1985.

Slade, M. A., G. A. Lyzenga, and A. Raefsky,
"Modeling of the Surface Static Displacements and
Fault Plane Slip for the 1979 Imperial Valley
Earthquake,"
Bulletin of the Seismological Society of America,
Vol. 74, No. 6, pp. 2413-2433, December 1984.

**Slavin, J. A., S.-I. Akasofu (University of Alaska),
D. N. Baker (Los Alamos National Laboratory,
New Mexico), D. G. Sibeck (University of
California, Los Angeles), E. J. Smith, and
R. D. Zwickl (Los Alamos National Laboratory,
New Mexico),**
"An ISEE 3 Study of Average and Substorm
Conditions in the Distant Magnetotail,"
Journal of Geophysical Research,
Vol. 90, No. A11, pp. 10,875-10,895,
November 1, 1985.

**Slavin, J. A., E. J. Smith, J. R. Spreiter (Stanford
University), and S. S. Stahara (R. M. Associates,
Inc., California),**
"Solar Wind Flow About the Outer Planets: Gas
Dynamic Modeling of the Jupiter and Saturn Bow
Shocks,"
Journal of Geophysical Research,
Vol. 90, No. A7, pp. 6275-6286, July 1, 1985.

Smith, E. J.,
"Interplanetary Shock Phenomena Beyond 1 AU,"
*Collisionless Shocks in the Heliosphere: Reviews of
Current Research,*
pp. 69-83, 1985.

**Somoano, R., B. J. Carter, D. Shen, S. Subba Rao,
and S. P. S. Yen,**
"The Cycle Life Chemistry of Ambient-Temperature
Secondary Lithium Cells,"
*Proceedings of the 20th Intersociety Energy
Conversion Engineering Conference, August 18-23,
1985, Miami Beach, Florida,*
pp. 2.43-2.46, 1985.

Stacy, J. E., A. B. Meinel, and M. P. Meinel,
"Upgrading Telescopes by Active Pupil Wavefront
Correction,"
*1985 International Lens Design Conference,
June 10-23, 1985, Cherry Hill, New Jersey,*
SPIE Vol. 554, pp. 186-190, 1985.

**Swanson, P. N., J. B. Breckinridge, A. Diner,
R. E. Freeland, W. R. Irace, P. M. McElroy,
A. B. Meinel, and A. F. Tolivar,**
"A System Concept for a Moderate Cost Large
Deployable Reflector (LDR),"
*Large Optics Technology, August 19-21, 1985, San
Diego, California,*
SPIE Vol. 571, pp. 233-244, 1985.

Tang, F. (California Institute of Technology), S.-I. Akasofu (University of Alaska), E. Smith, and B. Tsurutani,

"Magnetic Fields on the Sun and the North-South Component of Transient Variations of the Interplanetary Magnetic Field at 1 AU,"

Journal of Geophysical Research,

Vol. 90, No. A3, pp. 2703-2712, March 1, 1985.

Tarafdar, S. P., D. C. Black (NASA Ames Research Center), W. T. Huntress, Jr., S. S. Prasad, and K. R. Villere (University of California, Santa Cruz),

"Chemistry in Dynamically Evolving Clouds,"

Astrophysical Journal,

Vol. 289, No. 1, pp. 220-237, February 1, 1985.

Tausworthe, R. C.,

"Concepts and Tools for the Software Life Cycle,"

Computer Physics Communications,

Vol. 38, pp. 135-148, 1985.

Tedesco, E. F., and R. C. Taylor (University of Arizona),

"Pole Orientation of 16 Psyche by Two Independent Methods,"

Icarus,

Vol. 61, pp. 241-251, 1985.

Thakoor, A. P., W. L. Johnson (California Institute of Technology), S. K. Khanna, J. L. Lamb, and M. Mehra (California Institute of Technology),

"Refractory Amorphous Metallic ($W_{0.6}Re_{0.4}$) $_{76}B_{24}$ Coatings on Steel Substrates,"

Journal of Applied Physics,

Vol. 58, No. 9, pp. 3409-3414, November 1, 1985.

Thakoor, S., S. K. Khanna, J. L. Lamb, and A. P. Thakoor,

"High T_c Superconducting NbN Films Deposited at Room Temperature,"

Journal of Applied Physics,

Vol. 58, No. 12, pp. 4643-4648, December 15, 1985.

Thakoor, A. P., S. K. Khanna, J. L. Lamb, and R. M. Williams,

"Internal Stresses in Wear and Corrosion Resistant Amorphous Metallic Coatings of ($W_{0.6}Re_{0.4}$) $_{76}B_{24}$ and ($Mo_{0.6}Ru_{0.4}$) $_{82}B_{18}$,"

Journal of Vacuum Science Technology A,

Vol. 3, No. 3, pp. 600-604, May 1985.

Toth, R. A.,

"Line Positions and Strengths of CO_2 in the 1200-1430 cm^{-1} Region,"

Applied Optics,

Vol. 24, No. 2, pp. 261-274, January 15, 1985.

Trinh, E. H.,

"Compact Acoustic Levitation Device for Studies in Fluid Dynamics and Material Science in the Laboratory and Microgravity,"

Review of Scientific Instruments,

Vol. 56, No. 11, pp. 2059-2065, November 1985.

Tsurutani, B. T.,

"The Spacecraft 'Fleet' to Comet Halley: An Introduction,"

Eos,

1985.

Tsurutani, B. T., S.-I. Akasofu (University of Alaska), W. Butler, S. W. H. Cowley (Imperial College of Science and Technology, United Kingdom), S. P. Gary (Los Alamos National Laboratory, New Mexico), I. G. Richardson (Imperial College of Science and Technology, United Kingdom), E. J. Smith, R. M. Thorne (University of California, Los Angeles), and R. D. Zwickl (Los Alamos National Laboratory, New Mexico),

"Observations of the Right-Hand Resonant Ion Beam Instability in the Distant Plasma Sheet Boundary Layer,"

Journal of Geophysical Research,

Vol. 90, No. A12, pp. 12,159-12,172, December 1, 1985.

Tsurutani, B. T., Y. Kamide (Kyoto Sangyo University, Japan), J. H. King (NASA Goddard Space Flight Center), C. T. Russell (University of California, Los Angeles), J. A. Slavin, and R. D. Zwickl (Los Alamos National Laboratory, New Mexico),

"Coupling Between the Solar Wind and the Magnetosphere: CDAW 6,"

Journal of Geophysical Research,

Vol. 90, No. A2, pp. 1191-1199, February 1, 1985.

Tsurutani, B. T., and J. M. Landwehr (U.S. Geological Survey, Virginia),

"The Recent Revision of the AGU Index Set,"

Eos,

Vol. 66, No. 5, pp. 41-42, January 29, 1985.

Tsurutani, B. T., and R. P. Lin (University of California, Berkeley),
"Acceleration of >47 keV Ions and >2 keV Electrons by Interplanetary Shocks at 1 AU,"
Journal of Geophysical Research,
Vol. 90, No. A1, pp. 1-11, January 1, 1985.

Tsurutani, B. T., and R. G. Stone (NASA Goddard Space Flight Center),
"Collisionless Shocks in the Heliosphere,"
Eos,
Vol. 66, No. 48, p. 1200, November 26, 1985.

Turner, P. R.,
"Autonomy and Automation for Space Station Housekeeping and Maintenance Functions,"
Journal of Engineering for Industry,
Vol. 107, pp. 39-42, February 1985.

Ustin, S. L. (University of California, Berkeley), B. N. Rock, and R. A. Woodward (University of California, Davis),
"Analysis of Substrate and Plant Spectral Features of Semi-Arid Shrub Communities in the Owens Valley, California,"
Fourth Thematic Conference: Remote Sensing for Exploration Geology, April 1-4, 1985, San Francisco, California,
pp. 347-359, 1985.

Utku, S. (Duke University), J. L. M. Clemente (Duke University), and M. Salama,
"Errors in Reduction Methods,"
Computers and Structures,
Vol. 21, No. 6, pp. 1153-1157, 1985.

Utku, S. (Duke University), R. Melosh (Duke University), and M. Salama,
"Characterization of Concurrent Processing,"
Computing 85: A Broad Perspective of Current Developments,
pp. 75-81, Elsevier Science Publishers, 1985.

Vane, G.,
"High Spectral Resolution Remote Sensing of the Earth,"
Sensors,
December 1985.

Vasquez, R. P. (University of Southern California), F. J. Grunthaler, A. Madhukar (University of Southern California), and M. L. Naiman (Massachusetts Institute of Technology),
"Study of the Kinetics and Mechanism of the Thermal Nitridation of SiO₂,"
Applied Physics Letters,
Vol. 46, No. 4, pp. 361-363, February 15, 1985.

von Roos, O.,
"The Determination of Minority Carrier Lifetimes in Direct Band-Gap Semiconductors by Monitoring Intensity-Modulated Luminescence Radiation,"
Journal of Applied Physics,
Vol. 57, No. 6, pp. 2196-2202, March 15, 1985.

von Roos, O.,
"A Note on Heterojunction Discontinuities,"
IEEE Electron Device Letters,
Vol. EDL-6, No. 3, pp. 126-127, March 1985.

von Roos, O., and P. T. Landsberg (University of Southampton, England),
"Effect of Recombination on the Open-Circuit Voltage of a Silicon Solar Cell,"
Journal of Applied Physics,
Vol. 57, No. 10, pp. 4746-4751, May 15, 1986.

von Roos, O., and F. A. Lindholm (University of Florida),
"Steady-State Currents in p-n Junction Filaments or Grains in Case of Large Surface Recombination Velocities at Lateral Surfaces,"
Journal of Applied Physics,
Vol. 57, No. 2, pp. 415-417, January 15, 1985.

von Roos, O., and H. Mavromatis (American University, Lebanon),
"Position-Dependent Effective Masses in Semiconductor Theory. II,"
Physical Review B,
Vol. 31, No. 4, pp. 2294-2298, February 15, 1985.

Wada, B. K., R. J. Glaser, and C.-P. Kuo,
"Extension of Ground-Based Testing for Large Space Structures,"
AIAA/ASME/ASCE/AHS 26th Structures, Structural Dynamics and Materials Conference, April 15-17, 1985, Orlando, Florida,
pp. 477-483, 1985.

Wada, B. K., R. J. Glaser, and C.-P. Kuo,
"Multiple Boundary Condition Test (MBCT)
Approach to Update Mathematical Models of Large
Flexible Structures,"
Aerospace Technology Conference and Exposition,
October 14-17, 1985, Long Beach, California,
pp. 1-8, 1985.

**Wang, C. C., L. J. Deutsch, J. K. Omura (University
of California, Los Angeles), I. S. Reed (University
of Southern California), H. M. Shao, and
T. K. Truong,**
"VLSI Architectures for Computing Multiplications
and Inverses in $GF(2^m)$,"
IEEE Transactions on Computers,
Vol. C-34, No. 8, pp. 709-717, August 1985.

Wang, S. J., C.-H. C. Ih, and Y. H. Lin,
"Dynamics and Control of a Shuttle-Attached
Antenna Experiment,"
Journal of Guidance, Control, and Dynamics,
Vol. 8, No. 3, pp. 344-353, May 1985.

Webster, C. R.,
"Brewster-Plate Spoiler: A Novel Method for
Reducing the Amplitude of Interference Fringes
That Limit Tunable-Laser Absorption
Sensitivities,"
Journal of the Optical Society of America B,
Vol. 2, No. 9, pp. 1464-1470, September 1985.

**Webster, C. R., M. R. Gunson (Rutherford Appleton
Laboratory, United Kingdom), and R. D. May,**
"Tunable Diode Laser Stark Modulation
Spectroscopy for Rotational Assignment of the HNO_3
7.5 μm Band,"
Chemical Physics Letters,
Vol. 121, No. 4,5, pp. 429-436, November 15, 1985.

Weeks, C. J.,
"Static Shape Determination and Control for Large
Space Structures: I. The Flexible Beam,"
*Journal of Dynamic Systems, Measurement, and
Control,*
Vol. 106, pp. 261-266, December 1984.

Weeks, C. J.,
"Static Shape Determination and Control of Large
Space Structures: II. A Large Space Antenna,"
*Journal of Dynamic Systems, Measurement, and
Control,*
Vol. 106, pp. 267-272, December 1984.

Weinberg, M. C.,
"The Crystallization of Small Particles and
Droplets,"
Journal of Non-Crystalline Solids,
Vol. 76, pp. 253-265, 1985.

Weinberg, M. C.,
"Finite Sample Size Effects in Transformation
Kinetics,"
Journal of Non-Crystalline Solids,
Vol. 72, pp. 301-314, 1985.

**Weinberg, M. C., B. Dunn (University of
California, Los Angeles), J. D. Mackenzie
(University of California, Los Angeles), G. S. Moore
(University of California, Los Angeles),
G. F. Neilson, and G. L. Smith,**
"The Preparation and Characterization of a Lithium
Borate Glass Prepared by the Gel Technique,"
Journal of Materials Science,
Vol. 20, pp. 1501-1508, 1985.

Weinberg, M. C., and G. F. Neilson,
"On the Possibility of Critical Radius
Measurements in the Homogeneous Crystal
Nucleation of Glass,"
Journal of Non-Crystalline Solids,
Vol. 74, pp. 177-179, 1985.

Weissman, P. R.,
"Cratering Theories Bombarded,"
Nature,
Vol. 314, No. 6006, pp. 17-18, March 7, 1985.

Weissman, P. R.,
"Dynamical Evolution of the Oort Cloud,"
Dynamics of Comets: Their Origin and Evolution,
June 11-15, 1985, Rome, Italy,
pp. 87-96, 1985.

Weissman, P. R.,
"Terrestrial Impactors at Geological Boundary
Events: Comets or Asteroids?,"
Nature,
Vol. 314, No. 6011, pp. 517-518, April 11, 1985.

**Weissman, P. R., and H. H. Kieffer (U.S.
Geological Survey, Arizona),**
"Thermal Modeling of Halley's Comet,"
Advances in Space Research,
Vol. 4, No. 9, pp. 221-224, 1984.

West, R. A. (University of Colorado), H. Hart (University of Colorado), and P. N. Kupferman,
"Voyager 1 Imaging and IRIS Observations of Jovian Methane Absorption and Thermal Emission: Implications for Cloud Structure,"
Icarus,
Vol. 61, No. 2, pp. 311-342, February 1985.

Williams, I. D., A. Chutjian, R. J. W. Henry (Louisiana State University), and A. Z. Msezane (Atlanta University),
"Differential Electron Scattering Cross Sections for the $3^2S \rightarrow 3^2P^0$ h, k Transitions in Mg II: Comparison of Experiment and Theory,"
Astrophysical Journal,
Vol. 299, No. 2, pp. 1063-1066, December 15, 1985.

Wolff, R. S., M. M. Neugebauer, D. G. Sibeck (University of California, Los Angeles), and G. L. Siscoe (University of California, Los Angeles),
"Cometary Rays: Magnetically Channeled Outflow,"
Geophysical Research Letters,
Vol. 12, No. 11, pp. 749-752, November 1985.

Wong, E. C.,
"Attitude Control System for the Extreme Ultraviolet Explorer Satellite,"
Journal of the Astronautical Sciences,
Vol. 33, No. 4, pp. 401-415, October 1985.

Woo, R., J. W. Armstrong, R. A. Howard (Naval Research Laboratory, Washington, D.C.), M. J. Koomen (Naval Research Laboratory, Washington, D.C.), D. J. Michels (Naval Research Laboratory, Washington, D.C.), R. Schwenn (Max-Planck-Institut für Aeronomie, Federal Republic of Germany), and N. R. Sheeley, Jr. (Naval Research Laboratory, Washington, D.C.),
"Doppler Scintillation Observations of Interplanetary Shocks Within 0.3 AU,"
Journal of Geophysical Research,
Vol. 90, No. A1, pp. 154-162, January 1, 1985.

Wood, C.,
"Comment on 'Thermoelectric Figure of Merit of Boron Phosphide'," *Applied Physics Letters*,
Vol. 47, No. 11, pp. 1232, December 1, 1985.

Wood, C.,
"High-Temperature Thermoelectric Energy Conversion-II. Materials Survey," *Energy Conversion and Management*,
Vol. 24, No. 4, pp. 331-343, 1984.

Wood, C., L. R. Danielson (Thermo Electron Corporation, Massachusetts), A. Lockwood, J. Parker, V. Raag (Thermo Electron Corporation, Massachusetts), A. Zoltan, and D. Zoltan,
"Thermoelectric Properties of Lanthanum Sulfide," *Journal of Applied Physics*,
Vol. 58, No. 4, pp. 1542-1547, August 15, 1985.

Wood, C., D. Emin (Sandia National Laboratories, New Mexico), and P. E. Gray (GA Technologies, California),
"Thermal Conductivity of Boron Carbides," *Physical Review B*,
Vol. 31, No. 10, pp. 6811-6814, May 15, 1985.

Wood, C., D. Emin (Sandia National Laboratories, New Mexico), P. E. Gray (GA Technologies, California), and A. Zoltan,
"Thermal Conductivity Behavior of Boron Carbides," *Thermal Conductivity*,
Vol. 18, pp. 139-148, 1985.

Wood, C., G. Stapfer, and D. Zoltan,
"Measurement of Seebeck Coefficient Using a Light Pulse," *Review of Scientific Instruments*,
Vol. 56, No. 5, pp. 719-722, May 1985.

Wood, L. J.,
"Interplanetary Navigation through the Year 2005: The Outer Solar System," *Journal of the Astronautical Sciences*,
Vol. 33, No. 2, pp. 125-145, April 1985.

Wu, S.-C.,
"A Theorem of Equivalence on the Methods of Least-Squares Estimation," *IEEE Transactions on Automatic Control*,
Vol. AC-30, No. 2, pp. 172-175, February 1985.

Yan, T.-Y., and V. O. K. Li (University of Southern California),
"A Retransmission Protocol for the Message Service of a Land Mobile Satellite Experiment," *IEEE International Conference on Communications, June 23-26, 1985, Chicago, Illinois*,
pp. 766-770, 1985.

Yan, T.-Y., and V. O. K. Li (University of Southern California),

"A Variable Bandwidth Assignment Scheme for the Land Mobile Satellite Experiment,"
IEEE Proceedings Infocom '85, March 26-28, 1985, Washington, D.C.,
pp. 383-388, 1985.

Yan, T.-Y. and C. C. Wang,

"An Optimized Bandwidth Efficient Demand Assigned Protocol for Integrated Mobile Satellite Services,"
Proceedings of the IEEE Global Telecommunications Conference, December 2-5, 1985,
pp. 1166-1171, 1985.

Yeomans, D. K.,

"Advanced Missions to Primitive Bodies,"
Publications of the Astronomical Society of the Pacific,
Vol. 97, pp. 871-876, October 1985.

Yumoto, K. (Tohoku University, Japan), S.-I. Akasofu (University of Alaska), T. Saito (Tohoku University, Japan), E. J. Smith, and B. T. Tsurutani,

"Propagation Mechanism of Daytime Pc 3-4 Pulsations Observed at Synchronous Orbit and Multiple Ground-Based Stations,"
Journal of Geophysical Research,
Vol. 90, No. A7, pp. 6439-6450, July 1, 1985.

Yunck, T. P., S. M. Lichten, and S.-C. Wu,
"A GPS Measurement System for Precise Satellite Tracking and Geodesy,"
Journal of the Astronautical Sciences,
Vol. 33, No. 4, pp. 367-380, October 1985.

Yunck, T. P., W. G. Melbourne, and C. L. Thornton,

"GPS-Based Satellite Tracking System for Precise Positioning,"
IEEE Transactions on Geoscience and Remote Sensing,
Vol. GE-23, No. 4, pp. 450-457, July 1985.

Zak, M.,

"Shape Instability in Thin Viscous Films and Jets,"
Acta Mechanica,
Vol. 55, pp. 33-50, 1985.

Zak, M.,

"Two Types of Chaos in Non-Linear Mechanics,"
International Journal of Non-Linear Mechanics,
Vol. 20, No. 4, pp. 297-308, 1985.

Zoutendyk, J. A.,

"Accelerators for Critical Experiments Involving Single-Particle Upset in Solid-State Microcircuits,"
Nuclear Instruments and Methods in Physics Research B,
Vol. B10/11, pp. 757-762, 1985.